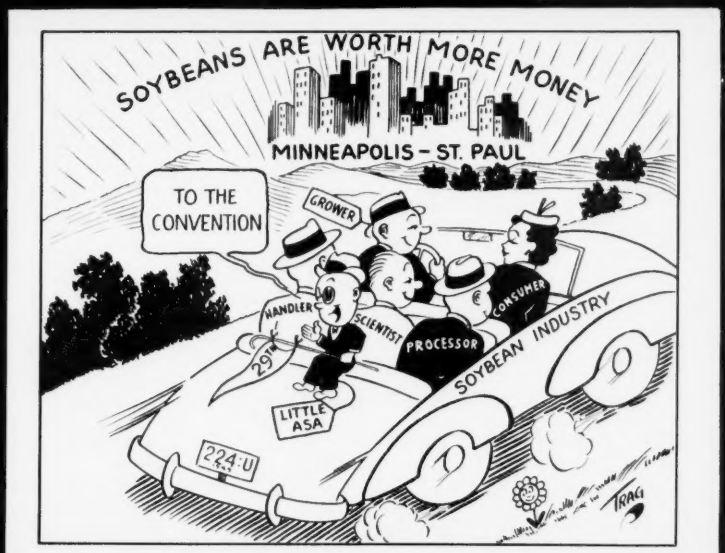
THE Soybean Digest



On to Minneapolis - St. Paul, Sept. 6-7-8

Official Publication

AMERICAN SOYBEAN ASSOCIATION

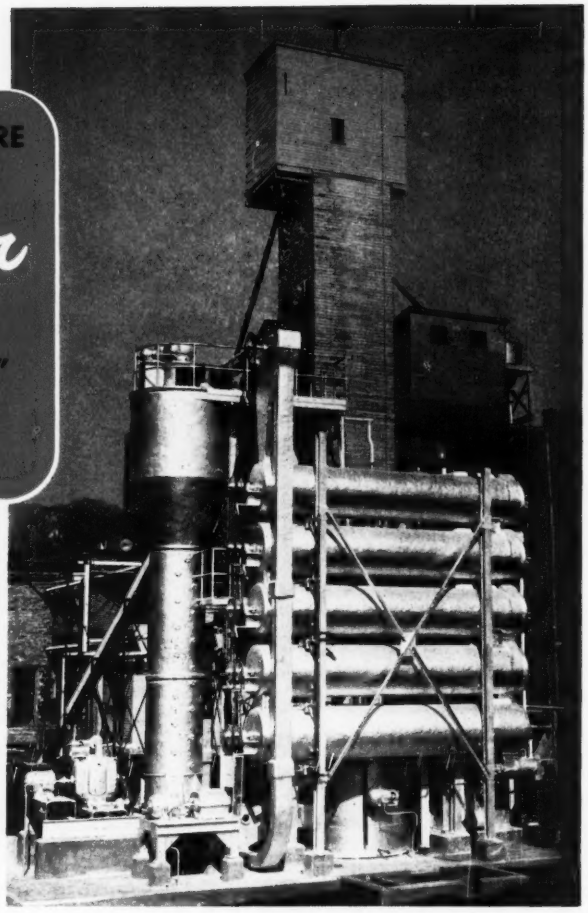
VOLUME 9 • NUMBER 10 AUGUST • 1949

"OUR SOLVENT LOSSES ARE

Lower than ever

WITH PHILLIPS HEXANE!"

—MUSCATINE PROCESSING CORPORATION
MUSCATINE, IOWA



"We operated over a year before switching to Phillips 66 Normal Hexane," says Gordon R. Christensen, Plant Superintendent. "And then, during April, 1949, the first full month using Phillips Hexane, we set a plant record for low solvent loss."

Of course, a lot of credit for the fine performance at Muscatine Processing Corporation goes to the plant operators. But even with perfect operating conditions, it takes an outstanding solvent to keep solvent losses at a minimum. Another advantage especially mentioned by Mr. Christensen was the prompt delivery of Phillips Solvents.

"Port City" soybean oil meal and soybean oil is made in this modern plant operated by Muscatine Processing Corporation.

Next time, specify Phillips 66 Extraction Solvents for these advantages:

- Extremely narrow boiling range to reduce your solvent loss
- Consistent high quality to minimize your operating problems
- Absence of disagreeable odors and tastes to assure high quality products
- Prompt shipment *on time every time*

And Phillips technical service is yours for the asking.

Phillips Extraction Solvents	*Typical Boiling Range*
Normal Hexane	151 — 156 F
Methylpentanes	139 — 145 F
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Other Phillips Solvents are available for oil extraction use. Write for information.

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CHEMICAL PRODUCTS DEPARTMENT
Bartlesville, Oklahoma

Phillips 66 SOLVENTS

SPECIAL SOLVENTS FOR SOYBEAN, COTTONSEED, FLAXSEED, TUNG NUT, RICE BRAN, CORN GERM, CASTOR BEAN, ALFALFA, ANIMAL FAT AND OTHER OIL EXTRACTION INDUSTRIES

THE *Soybean Digest*

REG. U. S. PAT OFF.

HUDSON, IOWA

Business, publication and circulation offices, Hudson, Iowa. Editor, Geo. M. Strayer. Managing Editor, Kent Pellett. Business Manager, Geo. McCulley. Director of Circulation, Gene Taylor.

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EDITOR'S DESK

SOYBEANS: A BASIC COMMODITY?

Our lead editorial in the January, 1949, issue of the Soybean Digest pointed out the current importance of the soybean crop as compared with some of the other crops now on the basic commodity list under the price support program, and suggested that soybeans should be given consideration as a basic commodity.

During consideration of the Brannan Bill in the committee on agriculture of the House of Representatives there was an amendment offered which would have removed peanuts from the basic commodity list, and substituted soybeans in their place. It is our understanding that the proposed amendment died with the defeat of the Brannan proposal.

There is support in the soybean industry for such a move. There is also opposition to it. As further consideration is given in Congress to the farm program for 1950-51 there may be consideration of expansion of the list of basic commodities. The industry must decide whether or not the addition of soybeans to the basic commodity list is desirable—whether the advantages or disadvantages weigh heaviest—and whether the gains would more than offset the losses.

SOYBEANS ARE WORTH MORE MONEY

Realization that soybeans have been consistently underpriced during recent months seems to have struck the market operators rather suddenly during the past month. Prices on cash soybeans during late July reflected more of the value of the crop, and November and December soybeans followed the same trend. There were many factors contributing to the advance, including the reduced acreage, the announcement of support price on cottonseed, the announcement of the resumption of import duty on coconut oil and copra, and the buying for export by the Army and foreign buyers.

For several months your editors have repeatedly pointed out that on the basis of their true food value soybean oil meal and soybean oil were both selling too cheap. The price of those two commodities determined the price which could be paid for soybeans. Compared to wheat and corn, soybeans have been worth more money. The soybean market has been the victim of supplies of fats and oils built up in this country with no chance for exports because of the Department of Commerce restrictions.

Watch soybeans during coming months. When the harvest starts we believe you will find "Soybeans Are Worth More Money" on the market-place than are wheat or corn. The man who held his acreage at former levels rather than switching to corn will profit this year.

'TIS CONVENTION TIME AGAIN

The 29th annual convention of the AMERICAN SOYBEAN ASSOCIATION will focus attention on the fact that "SOYBEANS ARE WORTH MORE MONEY." Your plans to attend these meetings should be made now—and your hotel reservations should be filed directly with Hotel Nicollet at Minneapolis.

The nation is in the throes of those agricultural adjustments which everyone recognized must come. Wheat acreages for 1950 are to be lowered. There is every likelihood that corn acreage will also be cut. Reduced cotton acreage in 1950 is a foregone conclusion. Where do soybeans fit into that over-all picture?

The nation's leadership in agricultural thinking—the men who are at the controls which will determine the destinies of the soybean crop will be on hand to point out, as best they can, where we are going.

Whether you are a grower, a soybean buyer, a soybean processor or a utilizer of the crop, it will pay dividends for you to attend the meetings on September 6, 7 and 8.

SEE YOU IN MINNEAPOLIS! Get your reservations in now, so you can be sure of the type of accomodations you want. And—don't forget to do a bit of vacationing in the Land of 10,000 Lakes!!

COCONUT OIL PROCESSING TAX INCREASED

One of the wartime and postwar moves was to allow the movement of coconut oil and copra from sources outside the Philippines into the U. S. on a non-preferential tax basis. We have been operating on that basis since shipments were resumed following occupation of the Islands as the Japs were driven out.

During the past year edible fats and oils have become plentiful in this nation, and supplies continued to build up until they were in surplus. On the Washington Digest page in this issue you will find a story on the reinstatement of the Philippine preferential duty.

Your AMERICAN SOYBEAN ASSOCIATION played an important part in presenting this matter to the President by petition, and in receiving favorable action from the White House. In effect, over a period of time, this move probably will mean about 2c per pound added to the price of soybean oil. That should mean 20c per bushel to every grower of soybeans in the United States.

We believe the AMERICAN SOYBEAN ASSOCIATION earned every cent contributed to its support last year on this one move alone—and it will be repaid to the growers through the years each time a crop is harvested.

SUPPORT PRICE GIVEN A SISTER CROP

Details on the recently announced support price on cottonseed from the 1949 crop are carried elsewhere in this issue. In the past the price of cotton lint has been under the price support program, but the cottonseed crop has never before been covered. This move should (and has already) materially strengthen the soybean oil market.

The seed crop, in much of the cotton production territory, goes to supply the year's cash to the cotton farmer. Most of the returns from the sale of his lint go to the landlord, the storekeeper, or the other interests which have staked the cotton producer through the production year. The returns from the seed are about the only cash which that farmer sees. Without support price, and in view of the extremely large acreage this year, prices of about $35 per ton were being talked. Such prices would have held soybean oil at levels too low for profitable production.

The American Soybean Association participated in the Washington negotiations which resulted in this support announcement for cottonseed. We are happy to see this sister oilseed on a basis where it will yield reasonable returns to the grower, both for the sake of the cotton industry and because of the effect on soybean oil markets.

SPEED UP GRAIN HANDLING

WITH SEEDBURO EQUIPMENT

Be certain that your grain handling equipment is adequate . . . that it's in good condition. Faster grain handling saves labor, time and money. And, to be sure of speedy delivery of items you need, place your order with SEEDBURO, your best source of a complete stock of grain and seed handling, testing and grading equipment. Every unit is made to rigid specifications...every product is precision built...rigidly inspected during manufacture and before shipment...fully guaranteed. Remember, there's only one SEEDBURO.

Seedburo No. 391 Improved Mosher Bag Holder. Accommodates bags of any height or width. Malleable iron jaws, wrought iron pipe standards and steel springs assure stability and durability.
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Aluminum Harvest-Handler. Handles up to 600 bu. per hour.

Weighs only 100 pounds, including motor. Handles ear corn and small grains.
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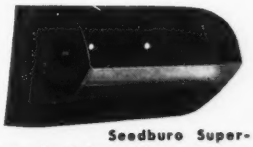

Seedburo Super-Capacity Calumet Elevator Cups. Assure maximum speed, capacity and efficiency. No bands or rivets. Discharges fast and thoroughly. Built of quality steel to stand up under long, hard service. Cups begin as low as 37¢ each, depending on size and quantity.

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Seedburo No. 658R Minneapolis Bag Truck. Equipped with wooden handles and extra long steel nose for large, bulky sacks and boxes. Heavy, one piece semi-steel cross bar extends over wheels, keeps load from rubbing. Roller Bearing equipped. Rubber tires.
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If you have not received your free copy of the new Seedburo catalog, listing more than 500 items for the grain and seed trade, plus complete descriptions, send for it today.

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STORAGE: HOW MUCH DOES IT COST?

For years Soybean Digest has been urging producers to store part of the soybean crop each season.

The adverse experience of some last year to the contrary, storage will pay the producer who has a good place to put his beans, or can arrange for such a place. And storage will put more order into the market, cut down on price swings.

But the question comes up: Just how much does it cost to store? How much must a grower realize for storage above the price he can get from the combine to pay for the storage and make a profit?

Costs involved in storage include construction and upkeep of buildings, insurance, taxes, interest on investment, labor of handling, shrinkage and possibly deterioration.

How much does it all cost? Your editors asked this question of several men who have had wide experience in growing and handling soybeans. Their answers differed, but they all agreed a substantial amount must be charged against storage.

Lester B. Mayer, Walley Agricultural Service, Fort Wayne, Ind., would place the figure at from 25c to 30c as the average cost of storage for $2 beans for 6 months. Mayer figures it about this way:

Handling in and out of storage, ½c to 2c a bushel; shrinkage, up to 10 percent, but average about 5; insurance ½ to 2 percent; taxes 2 percent; interest on investment 2½ percent. This adds up to 20c per bushel for $2 soybeans, assuming there is good storage on the farm not otherwise in use.

If storage must be constructed for the beans then overhead on storage must be added, says Mayer, and he figures this at about an additional 6c. This includes interest on money invested in storage, depreciation, maintenance and taxes.

"The experienced farmer ordinarily does not sit down and try to figure out storage cost on a theoretical basis as I have done," says Mayer. "However, he seems to know by intuition about what these costs are and the fact that most farmers have been selling their grain from the combine at 10 to 15c per bushel below government support price rather than put it in available storage on the farm and receive support price plus 7c storage paid by the government indicates to me that my figures may be a little high but are not far wrong.

"It is my opinion that it requires better storage for soybeans than any other grain produced on the farm, including wheat. In traveling over the country I have seen many, many leaky bins storing soybeans where I am certain that the shrinkage in 6 months' storage would run from 10 to 15 percent."

Albert Dimond, Lovington, Ill., farmer, says, "Ten or 12 cents would seem to be adequate margin to cover storage costs and labor in binning them. It is a rare year indeed when more than this cannot be realized. They are not hard to store. Bins must be strong and weather-tight of course and the soybeans must be in condition when they are put in. In our experience shrinkage has been practically nil. We do not figure it in our storage costs.

"Last year might be pointed out as a time when storage didn't work but beans reached $2.62 here for a time as against $2.20 to $2.30 during harvest.

"It is always good planning to

Elevator built for soybean storage on Scott Plantations, Tallulah, La., last year. Strictly modern, it is operated entirely with electricity. There is a 40-foot, 20-ton scale and an electric hoist to facilitate unloading of trucks and trailers. Storage capacity is 26,000 bushels, and 1,700 bushels can be unloaded per hour.

have a place to put a crop at harvest without having to dump it on the market. I have yet to see a farm working on a hand-to-mouth 1-year system that was an asset to the country. Certainly storage is an important part of any organized plan of operation."

W. M. Scott, Scott Plantations, Tallulah, La., erected the elevator shown on page 6 for storing the soybeans of his plantations last year. Cost of construction was $1 per bushel, but paid a dividend of 25 percent on last year's crop, he says.

"This cost is high, but it was built at about the height of prices," says Scott. "We would gladly do the same thing over again. We plan to add additional tanks as soon as possible to take care of our oats, wheat and milo.

"I do not think there is anything more important to a farmer than orderly marketing, and certainly without storage facilities it cannot be established."

J. E. Johnson, Champaign, Ill., farm manager, agrees that those who believe they lost money in storage last year may not be strictly accurate. He points out that the storage of a large part of the 1948 crop was in itself a factor in the upturn in price.

"The handling of the 1948 crop is ample evidence that the crop can be stored by growers either on their own farms or with local elevator storage," says Johnson. "For those farms that are equipped with good and safe storage, the farm is obviously the proper place.

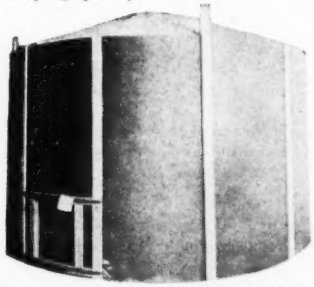
"Where the storage facilities are such that there is a heavy labor factor together with a large waste, I suggest that the local elevator storage be used. The reasonable charge for this service on the part of local elevators is small in comparison to the labor, waste and risk for farm storage that is not efficient."

Russell S. Davis, Clayton, Ill., says he has not as yet decided to store 1949 soybeans. "In the past we have made as much as a dollar per bushel by storing over winter," he says. "But my thoughts right now are that soybeans will sell closer to loan price than corn will at harvest time.

"With another big corn crop in prospect and lard already a burden, it might be well to sell soybeans from the combine if the price is near loan value.

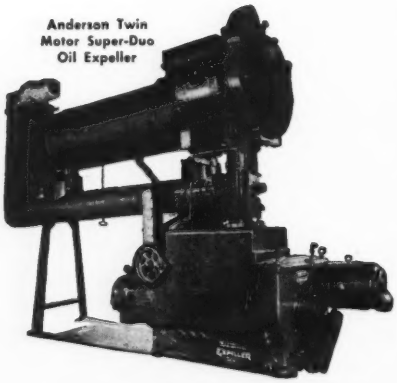
"Certainly I would not consider storing any beans with doubtful keeping quality.

H. I. Cohn, Sr., manager of Cypress Land Farms, Jaywye, Mo., and of Valley Farms, Carrollton, Ill., in the Cypress office at 314 Merchants Exchange Bldg., St. Louis, Mo. The firms farm 14,000 acres in the two operations, 3,500 acres in soybeans. Cypress Brand seed soybeans are widely used by growers reached through advertising in the SOYBEAN DIGEST. "The Digest should be thoroughly read by every farmer. I find it full of interesting information skillfully compiled," says Cohn.



A new circular type of grain storage bin designed by Illinois College of Agriculture engineers. Construction cost is 10c a bushel, not counting the floor. Two men can build the bin in a day. It is made of a new laminate type of building material, will hold 1,000 bushels. Blueprints and instruction sheet can be obtained from the College of Agriculture, Urbana, Ill., at a cost of 15c. The College also offers a booklet listing 30 new granaries and corn cribs—the best designs from 14 Midwest agricultural colleges for 25c.

*EXPELLERS**
are versatile too!



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ANDERSON EXPELLERS AND SOLVENT EXTRACTION EQUIPMENT

29th Annual CONVENTION

AMERICAN SOYBEAN ASSOCIATION

Hotel Nicollet, Minneapolis, Minn.

ERSEL WALLEY

OUR ANNUAL MEETING, 1949

Last year we met in Memphis with the convention theme, "The Soybean Moves South."

In going to Minneapolis this year, we recognize that the soybean has also moved north.

Minnesota is now one of the principal soybean producing states. It is also a leader in soybean processing.

In Minneapolis we will be among friends who represent all segments of the soybean industry. These are men who have been pioneers in the development of soybeans as one of our major crops.

In 1949 we have experienced a severe drop in soybean acreage in the United States. This indicates that acute problems now confront all segments of the industry. These problems demand solution now. All groups interested in soybeans must present a common front if we are to stand a chance of solving them.

This is why your presence at our 29th annual convention in Minneapolis-St. Paul is a "must." You can help in finding a solution of our common problems. And you can renew with others in the industry the spirit of fellowship.

Remember the time and place: September 6, 7, 8 at Hotel Nicollet in Minneapolis.

ERSEL WALLEY, President
American Soybean Association

Fort Wayne, Ind.
August 1, 1949

PROGRAM

(Tentative and Subject to Change)

MONDAY, SEPTEMBER 5

3:30 P.M. Board of directors meeting.
3:30 P.M. Committee meetings.
6:00 P.M. Advance registration, mezzanine floor.
8:00 P.M. Informal Smoker, Junior Ball Room.

TUESDAY, SEPTEMBER 6

8:00 A.M. Registration, mezzanine floor.
9:00 A.M. Exhibit booths open for inspection.
9:30 A.M. Ball Room. Ersel Walley, president, American Soybean Association, presiding.
"Let's Make the Rafters Ring." Group singing led by W. D. Peters, General Mills, Inc., songleader.
"Greetings from Minnesota," representative of governor's office.
"Greetings from Minneapolis," E. J. Grimes president Minneapolis Chamber of Commerce.
"Greetings from St. Paul," William S. Moscrip, president St. Paul Chamber of Commerce.
"Minneapolis—The World's Cash Grain Market," Arthur Hartwell, president Minneapolis Grain Exchange.
"The ASA Field Program," Paul C. Hughes, field director, American Soybean Association.
"Canadian Soybean Production," C. W. Owen, assistant forage crops, Department of Agriculture Experiment Station, Harrow, Ontario.
1:30 P.M. Reconvene. John Evans, vice president, American Soybean Association, presiding.
"Songs for Soybeaners," W. D. Peters, song leader.
"The New Soybean Grading Standards," W. L. Ingles, chairman of the board of grain supervisors, Production and Marketing Administration, Chicago, Ill.
"The 1949 Outlook for Soybeans," Geo. L. Prichard, director, fats and oils branch, P.M.A. Washington, D. C.
"Research on Flavor Stability of Soybean Oil at the Northern Regional Research Laboratory," Dr. J. C. Cowan, head, oil and protein division, Northern Regional Research Laboratory.
"What do Fat Emulsifiers Mean to Soybeans?" Speaker to be announced.
"Our Soybeans in World Trade," Dr. Julius Hendel, vice president Cargill, Inc., Minneapolis, Minn.

WEDNESDAY, SEPTEMBER 7

9:00 A.M. Exhibits on display.
9:30 A.M. Annual business meeting, American Soybean Association. Ball Room.
10:30 A.M. Song session.
"Soy Flour in European Occupied Areas," R. G. Brierley, Archer-Daniels-Midland Co., Minneapolis.
"Soybeans in the Food Economy of Germany," Dr. Wm. Bening, Frankfort, Germany.
"Feeding Hungry Peoples." Speaker to be announced.
1:30 P.M. "Soybeans and the Fertility Level." Speaker to be announced.
"Fertilizers and Soybeans." Speaker to be announced.
"Weed Control in Soybeans." Speaker to be announced.
"Root Rots of Soybeans," M. F. Kernkamp, division of plant pathology and botany, University of Minnesota.
7:00 P.M. Banquet, Grand Ballroom.
Singing, led by W. D. Peters.
Entertainment.
Presentation of honorary life memberships.
Introduction of guests.
Speaker—to be announced.

THURSDAY, SEPTEMBER 8

8:00 A.M. Exhibits open for inspection.
9:30 A.M. Field trip and tour.
Busses to leave Hotel Nicollet at 15 minute intervals. Visit University Farm, St. Paul, Minn. to see soybean variety and disease studies. Then to Research Laboratories, Archer-Daniels-Midland Co. for tour of facilities.
Smorgasbord Lunch, courtesy Archer-Daniels-Midland Co.
Scenic tour of Minneapolis, including Minnehaha Drive, Lake Nakomis, Lake Harriet, Lake Calhoun, Lake of the Isles, Minnehaha Falls.

LADIES PROGRAM—TUESDAY, SEPTEMBER 6

11:15 Luncheon, Sky Room, Daytons Store. Style Show.
2:30 Tour. Betty Crocker Kitchens, General Mills Building.

NOTES ON THE CONVENTION

If you do not have your hotel reservation made you'd best do so at once. It may soon be too late. All reservations should be made through Hotel Nicollet, Minneapolis. Be sure to specify that your reservation is for the American Soybean Association convention September 6 through 8.

If no rooms are available at the Nicollet you will be placed in a nearby hotel.

* * *

Since the convention immediately follows Labor Day week end you may never have a better chance to spend a little time at one of the scenic vacation spots in the Land of 10,000 Lakes.

For information on the fishing and vacationing in Minnesota and for accommodations write either one or both of the following:

Verne E. Joslin, director of Minnesota Department of Business Research and Development, State Capitol, St. Paul 1, Minn.

Julius Pealt, Minneapolis Convention and Visitors Bureau, Pillsbury Bldg., Minneapolis, Minn.

* * *

Both the style show in the Sky Room of Dayton's Store and the visit to the Betty Crocker Kitchens at General Mills, Inc., on Sept. 6 should appeal to the women who attend the convention. This will be an occasion long to be remembered.

* * *

For the field trip and tour, buses will leave Hotel Nicollet in pairs and go direct to the University Farm at St. Paul to see the Experiment Station's variety and disease work on soybeans.

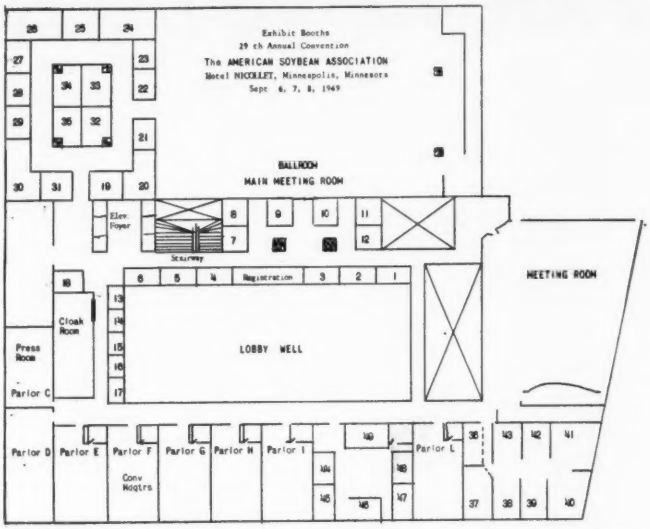
At noon we go to Archer-Daniels-Midland Co.'s research laboratories for smorgasbord lunch and to see the laboratories.

The convention winds up with a tour of Minneapolis' famed Boulevard Drive, including Minnehaha Drive, Lake Nakomis, Lake Harriet, Lake Calhoun, Lake of the Isles and Minnehaha Falls.

* * *

You are given a special invitation by R. E. Hodgson, the superintendent, to visit the Southeast Experiment Station at Waseca, Minn., either going to or coming from the convention. Some of the most significant experimental work on soybeans in the state is being carried on there.

Visit with Your Exhibitors in Minneapolis



This is a diagram of the exhibit booths on the Mezzanine floor of Hotel Nicollet, Minneapolis, where you can visit with your friends among exhibitors at the American Soybean Association convention — and make new friends. Exhibitors will welcome your call during the convention. See below for list of exhibitors and their booths.

Here are the names of exhibitors and their booths at the 29th annual ASA convention:
Booth No.

1—National Association of Margarine Manufacturers, Washington, D. C.

2—Dave Fischbein Co., Minneapolis, Minn.

3—Crown Iron Works Co., Minneapolis, Minn.

4—V. D. Anderson Co., Cleveland, Ohio.

5—Arid-Aire Manufacturing Co., Minneapolis, Minn.

6—Skelly Oil Co., Kansas City, Mo.

7—Seedburo Equipment Co., Chicago, Ill.

8—Humphrey Elevator Co., Faribault, Minn.

9, 10—Burrows Equipment Co., Evanston, Ill.

11—Nutting Truck & Caster Co., Faribault, Minn.

12—Sparkler Manufacturing Co., Mundelein, Ill.

13—American Mineral Spirits Co., Chicago, Ill.

14—R. R. Howell Co., Minneapolis, Minn.

15—Tillotson Construction Co., Omaha, Nebr.

16—French Oil Mill Machinery Co., Piqua, Ohio.

17—Fuel Economy Engineering Co., St. Paul, Minn.

18—Corn States Hybrid Service, Des Moines, Iowa.

20—Haaky Manufacturing Co., St. Paul, Minn.

21—Cunningham Industrial Service, Minneapolis, Minn.

22, 23—Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

24—Hart-Carter Co., Minneapolis, Minn.

25—Blaw Knox Co., Pittsburgh, Pa.

26—J. C. Kintz Co., Cedar Rapids, Iowa.

27—Albert Dickinson Co., Chicago, Ill.

28—Chase Bag Co., Chicago, Ill.

29—Kennedy Car Liner & Bag Co., Shelbyville, Ind.

30—National Soybean Crop Improvement Council, Decatur, Ind.

31—Central Scientific Co., Chicago, Ill.

32—William H. Banks Warehouses, Inc., Chicago, Ill.

33—A. T. Ferrell & Co., Saginaw, Mich.

34—Prater Pulverizer Co., Chicago, Ill.

35—Barnard & Leas Manufacturing Co., Cedar Rapids, Iowa.

36—Urbana Laboratories, Urbana, Ill.

45—Geo. T. Walker & Co., Minneapolis, Minn.

46—Forster Manufacturing Co., Wichita, Kans.

49—Soybean Digest, Hudson, Iowa.

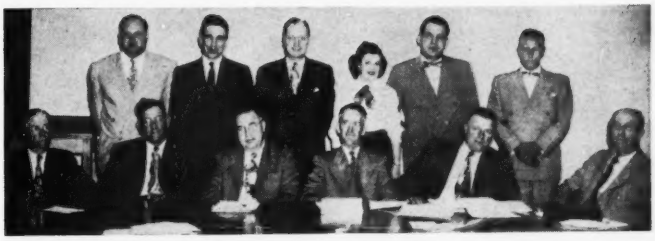
Parlor E—St. Regis Paper Co., New York, N. Y.

Parlor G—Archer-Daniels-Midland Co., Minneapolis, Minn.

Parlor H—Southeastern Products Corp., Birmingham, Ala.

Parlor I—Honeymead Products Co., Mankato, Minn.

Parlor L—Butler Manufacturing Co., Kansas City, Mo.



Members of the Oilseeds and Peanut Advsiory Committee in attendance at a recent meeting in the Department of Agriculture, Washington, D. C. Seated, left to right: T. H. Gregory, Memphis, Tenn.; A. D. Richardson, Floresville, Tex.; Harry J. Deuel, Jr., Los Angeles, Calif., chairman; J. B. Edmondson, Danville, Ind.; Otto Brandau, Rudd, Iowa; Argyle McLachlan, Imperial, Calif. Standing, left to right: Leo A. Fisher, Sikeston, Mo.; Charles B. Shuman, Chicago, Ill., vice chairman; Maurice R. Cooper, assistant to the administrator and executive secretary; Louise S. Vance, recording secretary; William H. Fischer, Milwaukee, Wis.; and Howard Kellogg, Jr., Buffalo, N. Y. In addition to those shown, S. E. Stathman, Cobb, Ga., was also in attendance during a part of the meeting.

RESEARCH ON FATS, OILS MARKETS

A need for research designed to increase the utilization or market outlets for fats and oils is emphasized in recommendations of the Oilseeds and Peanut Advisory Committee for new work under the Research and Marketing Act. The recommendations, in a report resulting from the Committee's recent meeting in the U. S. Department of Agriculture, are largely for work to be initiated in fiscal 1951, which begins next July 1.

The Committee, in reviewing active and proposed work in the broad fields of utilization and to a lesser extent some of the marketing work, gave consideration to the recent decline in demand for fats and oils and the resulting need for increased research on the products. It expressed concern over the rapid increase in the use of synthetic detergents in the place of soap made from natural fats and oils and the use of chemical emulsifiers as a substitute for shortening and lard in the baking industry.

The new areas of work recommended by the Committee for 1951, after adequate funds are provided for continuing work under way, are listed here in order of priority under the three broad fields provided in the Act: utilization, production and marketing.

Under *utilization*, new work is recommended on:

Testing of soybean oils in the manufacture of paints, including demonstrations of their value by actual application on farm structures. It is strongly recommended that this work be included in the 1950 program if possible.

Studies of problems in processing and utilizing such potential oil-bearing domestic crops as sesame, safflower, sunflower and okra, especially those yielding oils and proteins with unique properties.

Studies of the level of fat requirements that is best for man.

Under *production*, new work is recommended on:

Insect problems of soybeans and flaxseed, to be added to the 1950 program if possible.

Development of superior varieties of soybeans for food, feed and industrial purposes.

Factors affecting the germination of soybeans.

Under *marketing*, new work is recommended on:

Problems of moisture in soybeans and flaxseed.

Development of new and expanded outlets for soybeans and soybean products.

A pilot study to develop new basic data and market information on production, stocks, shipments, utilization, and prices of oilseeds, fats and oils, and their products.

—s b d—

KELLOGG PRODUCTS

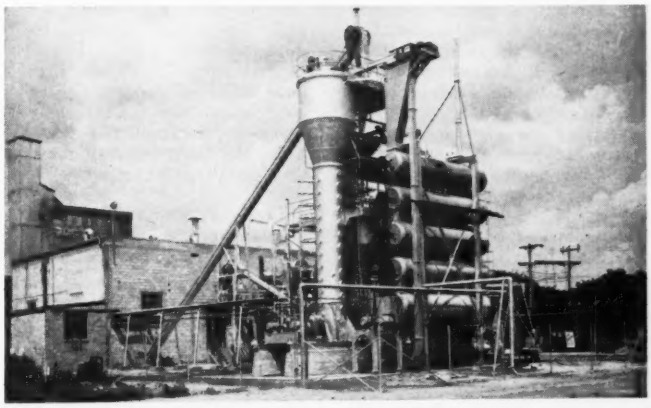
As a result of extensive research on reacting linseed and soybean oils with dicyclopentadiene, these oils are now available on a commercial scale, Spencer Kellogg & Sons, Buffalo, N. Y., announced.

It is believed that dicyclopentadiene is depolymerized by heat and that the monomer reacts with the double bonds of the oil in accordance with the Diels-Alder reaction.

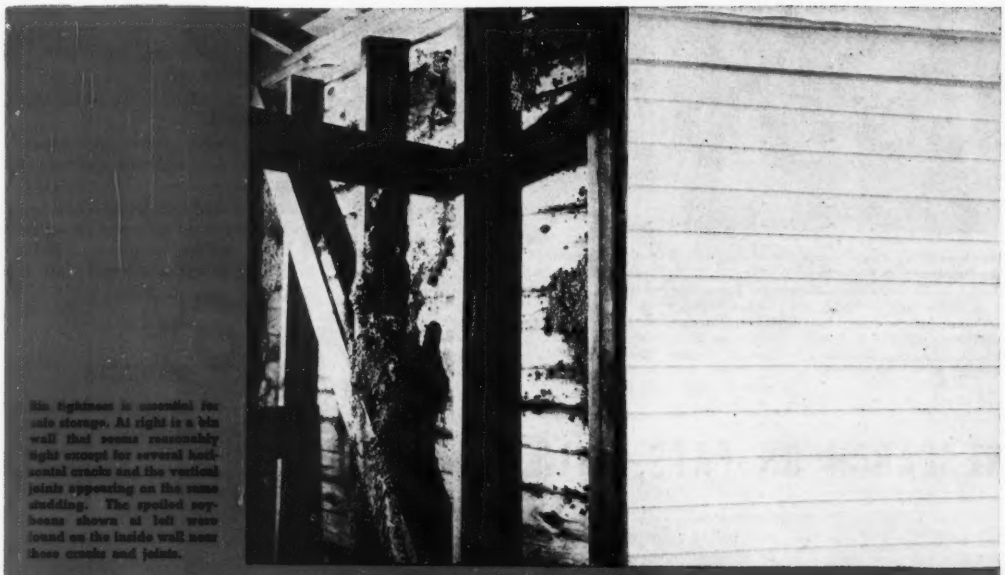
The linseed base oil will be known as Cykelin and the soybean base as Cykelsoy.

Produced in a Z2 viscosity, as is Cykelin, Cykelsoy has a somewhat darker color. Cykelsoy sets slower than Cykelin but dries very hard over-night; its water and alkali-resistance are good. Cykelsoy is also recommended for use in varnishes and enamel vehicles.

New Honeymead Plant



The 200-ton solvent extraction plant of Honeymead products Co., Mankato, Minn., which went into operation May 25. With the five-Expeller plant which the firm began operating in October 1948, Honeymead now has a capacity of 10,000 bushels of soybeans every 24 hours. The solvent plant was erected by V. D. Anderson Co. Honeymead formerly operated solvent extraction plants at Cedar Rapids, Washington and Spencer, Iowa.



Bin tightness is essential for safe storage. At right is a bin wall that seems reasonably tight except for several horizontal cracks and the vertical joints opposing on the same studding. The spoiled soybeans shown at left were found on the inside wall near these cracks and joints.

Farm Storage OF SOYBEANS

By LEO E. HOLMAN

Agricultural Engineer, Bureau of Plant Industry, Soils, and Agricultural Engineering, Agricultural Research Administration, U. S. Department of Agriculture.

and DEANE G. CARTER

Professor of Farm Structures, Department of Agricultural Engineering, University of Illinois.

THIS ARTICLE deals with problems of storing soybeans on the farm as studied in the research work that has been conducted cooperatively between the U. S. Department of Agriculture and the Illinois Agricultural Experiment Station during the past 5 years at Urbana.

Adequate farm storage is desirable for an orderly marketing system that will benefit growers, buyers and processors. Economists, trade magazines, processors and others in the past several years have been advocating more farm storage. This advice is apparently taking effect according to a report released recently by the Bureau of Agricultural Economics. This states that on January 1, 1949 nearly 75 million bushels were in storage on farms in the United States, the second largest amount on record. What the quality of these soybeans were when marketed depended largely on how and where they were stored on the farm.

Many of the problems of farm storage are common to those of commercial storages. However, soybeans on the farm are stored in relatively small lots requiring many storage units to equal the capacity of one commercial storage. Each of these individual storages must do a good job if high quality soybeans are to be marketed. Because soybeans are a valuable crop, they rate the best possible storage on the farm.

The main problems involved in farm storage are:

1—Structures properly designed to do the job.

2—Moisture limits for safe storage.

3—Changes in oil quality, viability, fat acidity, and grade factors.

4—Insect infestation and control.

5—The conditioning of soybeans having moistures too high for safe storage.

Structures—A great deal of the soybeans now held on farms are stored in overhead bins in the traditional combination corn crib and granary. In general, this provides good storage but is relatively costly because of supporting the weight of soybeans over a wide driveway between the two double cribs. It is also doubtful if there is sufficient storage space now available on farms to store the maior portion of any soybean crops. The advent of mechanical conditioning of ear corn and small grains may bring about design changes in storage structures for all grains.

Tightness Important

Tight bins are necessary to exclude moisture, or no advantage is gained by storing dry grain. Tightness has been found to be more important than bin size, shape, or color. Soybeans absorb moisture readily, and even small leaks can cause considerable damage. Some damage occurred in soybeans stored in wood-framed bins even though they appeared to be as tight as the average farm bin. Most of the damage appeared to be due to the entrance of moisture through cracks, defects, or joints in the siding.

Some value has been attributed to light-colored or reflective bin surfaces to reflect heat and maintain

Principal results reported in this paper were derived from cooperative research conducted jointly by the Bureau of Plant Industry, Soils and Agricultural Engineering, Illinois Agricultural Experiment Station, Departments of Agronomy and Agricultural Engineering, and the Illinois Natural History Survey.

lower temperatures as grain temperatures can be an important factor during warm weather with stored grain having moistures near the upper safe limits. This practice has been effective in Kansas and other locations with similar atmospheric conditions but there is no evidence that color or reflective surfaces has any significant effect on stored grain temperatures in Illinois.

Grain temperatures — High grain temperatures have not been a problem under normal atmospheric conditions common to central Illinois where soybeans have been stored with moistures of 12 percent or below. Little consideration of temperature control has been necessary with the small volumes stored on farms to date. Soybean temperatures were observed in a number of bins in Illinois—by means of thermocouples placed in the grain. The highest average temperature for the 10 bins was 78° F during August; they averaged less than 70° F for nearly 9 months of the year. Soybean temperatures followed the air temperatures although lagging by 15 to 30 days. These were good quality, dry soybeans.

Relatively low temperatures do decrease the likelihood of heating, molding, fat acidity increases, or loss of germination, but these factors are more closely related to moisture than to temperature.

Moisture limits — High grain moistures are responsible for most storage difficulties, whether in the grain when stored, or through entrance of external moisture into the storage structure. In the storage studies conducted in Illinois there was a close relation between grade, chemical, and germination changes and the moisture content of the stored soybeans. There was no significant grade changes after 2 1/3 years in soybeans stored with 12 percent moisture. However, several bins with 13 to 14 percent moisture graded "sample" because of a musty odor after 10 months storage from January to October. All soybeans stored with 14 percent moisture and above graded "sample" after storage from January to July. Therefore, the moisture limits for safe storage at Urbana, Ill., seem to be about as follows:

1—*For short time, cool weather storage*—Soybeans with 14 to 15 percent moisture have been stored through late fall and winter with little damage but deteriorate rapidly when warm weather arrives.

2—*For 1-year storage* — With moistures up to 13 percent they were stored for 1 year with little change in grade, but the acid number of the oil became higher than processors like to have it, and seed viability decreased to nearly zero.

3—*For long-time storage*—Soybeans with 12 percent moisture gave little trouble for 34 months, but the quality deteriorated noticeably after 36 months. At 9 percent there was no significant reduction in quality after 3 years' storage.

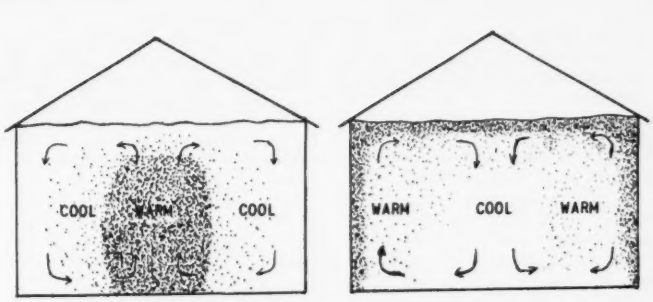
4—*For seed storage*—At normal temperatures moistures up to 12 percent were satisfactory for one season and 9 percent when stored longer than 1 year.

Changes in fat acidity and germination—In identical bins during some 650 days storage there was little decrease in germination or increase in fat acidity in grain stored with moistures below 9 percent. Where moistures ranged from 12 to 12.5 percent, the changes were more pronounced; however, no change in grade occurred during the storage period. Soybeans stored with moisture of 13.5 to 13.7 percent changed rapidly with the advent of warm weather. By the end of 650 days the viability had decreased to almost zero, and the fat acidity had increased much more than desirable.

Moisture movement—A seasonal movement of moisture has been noted in stored soybeans even where moistures are low enough for safe storage. This movement during the fall and winter causes moisture accumulations in the upper grain layers that may become sufficiently high to cause damage from molds and insects. Soybeans near the walls and upper surfaces cool more rapidly than those at the bin center.

Convection currents are thus created with cool air moving downward near the bin walls and then upward as it becomes warmer and lighter upon coming in contact with the comparatively warm mass of grain at the bin center. This column of slowly rising air carries moisture vapor from the warm grain toward the cooler upper layers where some vapor condenses. Thus, the moisture content is increased in the surface layers of grain in a convex-shaped mass 12-24 inches deep at the bin center, becoming very thin or disappearing entirely within 2 to 3 feet of the side walls.

Temperature conditions within the grain are reversed during the spring and summer months. Soybeans near the walls and upper surface warm up more rapidly than those at the bin center. Convection currents are thus set up which carry moisture from the surface layers downward toward the bin center.



Convection currents are created within grain bins when temperature differences exist in the grain mass. In the fall and early winter (left), when the grain near the wall and upper surfaces cools more rapidly than grain at the bin center, the cool air moves downward near the wall and then upward as it comes in contact with the warmer grain. In the spring and summer this process is reversed when the grain warms faster than grain at the bin center.

IT'LL HOLD JUST SO MUCH...!

This moisture movement is not as pronounced as the movement in the opposite direction during the fall and winter.

In an extreme case soybeans stored with 12-13 percent moisture increased to 24 percent in the upper part of the bin during 2 years in storage. The grain was stored in a 2,000-bushel steel bin in central Illinois in November 1942; by February 1943, the moisture in the upper layers had increased above 16 percent. The surface dried out during the summer, and by October, 1943 there was but a small area with moistures above 16 percent. Moistures had increased in the central part of the bin, however, indicating that the moisture had moved downward.

The moisture near the surface had increased to 24 percent by February 1944, but dried out again through the summer. This alternate wetting and drying in the surface layers continued until the bin was emptied in January 1945. The moisture was then again up to 24 percent near the surface while the moisture in the lower central two-thirds of the bin was below 11.5 percent. The first average moisture of the soybeans was 12.4 percent when the bin was emptied.

Generally, moisture accumulations resulting from moisture movement do not affect any large volume of grain in a bin unless the average moisture content is 13 percent or above. Stirring the grain surface during the late fall and winter helps to break up the moisture accumulations and to prevent spoilage. Cold air forced upward through the central part of the bin tends to equalize grain temperatures and thus stop convection currents. This practice has been given limited tests in farm-type bins. It required considerable preparation before the bin is filled and equipment for forcing air through the grain. Insulation has also been applied over the surface in a few tests with limited success.

It is desirable to have soybeans dry enough so that moisture movement will not present a serious problem. Soybeans stored with moistures of 12 percent or lower gave no trouble in the storage studies conducted at the University of Illinois.

Insect Damage

Insect infestation and control — Few insects have been found in good-quality, low-moistured soybeans stored under normal conditions in the experiments at Urbana, but on the basis of observations conducted there and at other points in the state, the following recommendations were made by Dr. M. D. Farrar, research entomologist, Illinois Natural History Survey, in an article published in the Soybean Digest, December 1945:

"As far as insects are concerned, the following brackets of conditions are suggested: No damage will occur from insects in soybeans containing less than 8 percent moisture. Those with 8 percent to 10 percent moisture are relatively safe. In bins with soybeans of 10 percent to 12 percent moisture content, insects will breed in those parts of the grain where the moisture exceeds 12 percent. Soybeans with 12 percent to 14 percent moisture will be attacked by a variety of insects, some of which may cause additional spoilage. Bins containing soybeans with a moisture content in excess of 14 percent are not safe for storage beyond the first winter. Such bins will be heavily attacked by insects as soon as the insects become active in the spring."

Mechanical ventilation—It provides a positive method of conditioning soybeans that are too wet for safe storage. Very few soybeans have been dried on the farm to date, but if more soybeans are to be stored on the farm, the need for mechanical drying will increase. Farmers are now beginning to consider artificial drying for hay, ear corn, and shelled corn, and the same facilities can be used for drying soybeans. Soybeans offer less resistance to air flow than do either shelled corn or wheat and should cost relatively less to dry.

Cooperative studies are now under way at the University of Illinois to determine the effects of temperature, humidity, air movement, type of grain, and previous history of the grain on the exposed rate of drying the soybeans and other grains. Samples of one kernel thickness, or depth, are used in these laboratory studies to give fully exposed conditions of drying as the rates of drying in bulk may be computed from the rates of drying of fully exposed samples.

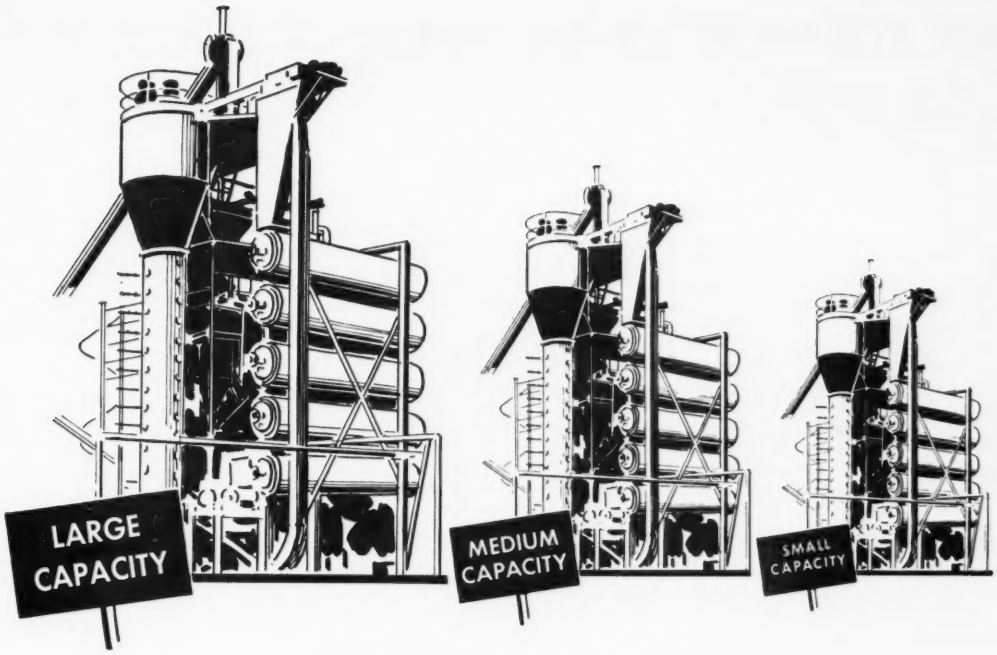
—s b d—

COMPARE PROCESSES

Solvent extracted linseed oil meal is slightly higher in feeding value than the meal prepared by the screw press process. This is indicated by the results of comparative assays run by the Wisconsin Alumni Research Foundation for Minnesota Linseed Oil Co.

A 34 percent screw press linseed oil meal and a 35 percent extracted linseed oil meal were used in the assays. The extracted meal showed higher protein and higher average vitamin and amino acid content than the screw press meal.

"With one or two exceptions, and they are minor, the trend definitely favors the solvent extracted type," states Henry T. Scott, director of biological research of the Foundation.



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NEW STORAGE IN CENTRAL ILLINOIS

"We are building additional storage." This is the answer many elevator managers of east central Illinois are giving to the question of how they will handle this year's soybean crop along with a record corn crop.

Over 600,000 bushels of new storage is either completed, under construction or contracted for in that area with many other elevators waiting until Commodity Credit Corporation officially announces its plans for handling of loan corn before planning the amount and type of storage they will build.

Type of storage being built includes concrete, cement staves and steel tanks with cement tanks being the favorite. Cement slabs and steel tanks are favored by those who will get a late start on construction if their plan goes through for building storage.

Those putting up concrete tanks are: Eugene Hoerner, manager of the Ludlow Cooperative Elevator Co., Ludlow, who is adding 80,000 bushels; Harold Steele, manager of Fisher Farmers Grain & Coal Co., Fisher, who has completed 43,000 bushels; Harold A. Silver, manager of Silver Bros., Mira Station, Urbana, who is building 48,000 bushels; Lee Nelson, manager Savoy Grain & Coal Co., Savoy, who has the contracts let for 70,000 bushels; Hasenwinkle & Wallace Co., who are building 28,000 bushels storage at their Heyworth Elevator where V. J. Stills is manager. and 45,000 bushels at their Leroy Station Elevator where Earl Nichols is manager; Gring & McCord, Farmer City, 200,000 bushels; and Mead McWilliams Elevator Co., Pawnee, Ill., six silos with a total capacity of over 300,000 bushels.

Those erecting cement stave are: Forrest H. Koehn, manager of the Villa Grove Farmers Elevator, Villa Grove, who is putting up 38,000 bushels; D. E. Warnes, manager of the Fairland Grain Co., Villa Grove, who is building 18,000 bushels; and Richard M. Lovingfoss, manager of the Sadorus Cooperative Elevator Co., Sadorus, who is putting up 25,000 bushels. Tanks of both Villa Grove firms are being erected by Neff & Fry Co., Camden, Ohio, and those at Sadorus are by Marietta Concrete Corp.

Steel tanks are being erected by: Robert P. O'Malley, manager of Harris Grain Co., Harris, who is putting up 33,000 bushels; and Harold Izard, manager of the Fithian Grain Co., Fithian, who is building 125,000 bushels. Butler Manufacturing Co. furnishes the Harris tanks.

If CCC comes out with a guarantee that it will use new storage for a given period, many thousand more bushels of storage will be built this year.

—sbd—

FOR SURFACE COATINGS

Oronite Chemical Co., New York City, hopes to be in commercial production of toluic acid in the not-too-distant future, reports Journal of Commerce, New York City.

California Research Corp., an affiliate of Oronite, has developed a process for the production of toluic acid which will permit the manufacture of this versatile compound on a commercial scale at relatively low cost.

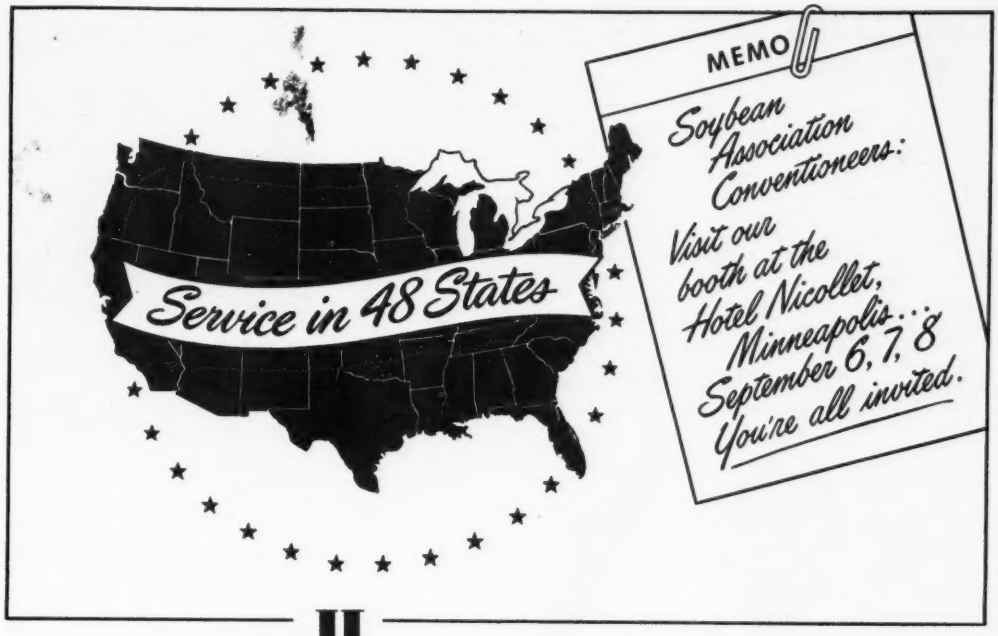
It appears to be particularly promising as an ingredient for alkyd resins, and for this reason the surface-coating industry is watching this development with considerable interest.

Pentaerythritol-soybean alkyds, modified with toluic acid when tested as air-dry coatings containing driers, have been found to have excellent drying times and resistance to water and dilute caustic. If the soybean-oil fatty acids are progressively replaced with larger and larger quantities of toluic acid, the hardness of the coating is found to increase correspondingly, says Journal of Commerce.

—sbd—

FUTURE FOR TUNG

Of oil-producing plants, the tung tree is an outstanding example of the successful introduction and commercial exploitation of a new chemurgic crop, says P. V. Cardon of the U. S. Department of Agriculture. "Domestic production of oil from tung nuts, which began in 1933 with an output of 150 thousand pounds, is currently about 17 million pounds a year. So far, American tung oil is supplying only a relatively small part of this demand. There is a possibility that tung oil will find increasing use in paints and varnishes, particularly in combination with soybean oil."



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GUAR A COMING CROP

By R. H. FOSBRINK

Purdue University Agricultural Experiment Station

Chief among new crops being considered by scientists at Purdue University is guar, a plant offering many possibilities for industrial uses. Guar is a vine-like, hot weather plant bearing large leaves and clusters of bean pods containing pea-shaped seeds.

Origin

Known botanically as *Cyamopsis tetragonoloba*, guar is a native of India where it is grown widely as a cattle feed. It is sometimes used as food by the Indians. Guar was introduced to the United States in 1903 by the U. S. Department of Agriculture. It was tested as a feed and cover crop for use in the Southwest. However, it remained more or less a curiosity until during the war when a need arose for its gum-containing seeds.

Guar met so well the requirements of a domestic gum producing plant that its agriculture and milling were undertaken at once, and the past 4 or 5 years have seen the first commercial production and use of guar in southern Arizona, New Mexico and California.

Production

The existing varieties of guar require warm weather and a relatively long growing season of 135 to 165 days. Guar has been grown at Purdue for the past 2 years.

Guar plants in an experimental plot on the soils and crops farm, Purdue University.

The guar plant is a legume and definitely a soil-improving crop. It is drouth resistant, but grows well in regions of average rainfall. Yields of 1,500 pounds of seed per acre have been obtained on fertile soil.

Industrial Uses

The seed of the guar plant when processed, can be used principally as a paper sizing material, in the manufacture of plastics, films and industrial adhesives. It is also a valuable aid in the hydration of paper pulp.

Guar flour, by itself, may be used as a thickening agent for salad dressing, ice cream mixes, bakery products and other foods. Experimental work to find other new and important uses for guar is under the direction of Roy L. Whistler of the agricultural chemistry department at Purdue.

—s b d—

ON-THE-FARM DRYING

"One of the new milestones in agriculture is in commodity conditioning on the farm," says Arthur W. Turner, assistant chief of U. S. Bureau of Agricultural Engineering Research.

"I refer particularly to the use of equipment that many prefer to call a 'crop drier.'" says Turner. "Many are convinced that in the short period of 5 or 6 years a crop conditioning unit will become as common on many farms as the corn picker and the combine.

"Driers are now doing a good job in eliminating or minimizing weather hazards. It seems possible that eventually the market for these units may be as high as 5 million."

GOOD PROGRESS BY CROP

The soybean crop was making good progress in late July with maturity normal or more advanced than normal in most areas, according to Soybean Digest crop reporters.

Weather and moisture conditions have been good in most sections and early varieties are podding. The problem of weed control is not serious except where complicated by too much moisture.

Grasshoppers are causing some trouble. Little disease has shown up as yet.

Apparently a minor part of the crop would be caught by frost at normal date.

A reduction of 6 percent from last year is indicated for the 1949 acreage of soybeans *grown alone for all purposes*, reports the crop reporting board of U. S. Department of Agriculture July 11. The 11.1 million acres planted this year is the lowest since the prewar crops of 1941 and about 5 percent less than the 1938-47 average.

About 2 percent less soybeans were planted than farmers' intentions indicated as of March 1. Much of the decreases came in Illinois and Iowa, the two heaviest producing states.

Illinois and Indiana each show a decline of about 5 percent from a year ago. Of the major producing states, Iowa and Minnesota show the sharpest declines—17 and 12 percent respectively. The acreage in Minnesota, however, is still almost double the 10-year average. An increase of 22 percent over last year is expected in Kansas, where record yields were harvested in 1948.

A reduction of 8 percent in North Carolina from a year ago more than offset slight gains in most other states in the South Atlantic area. Acreage continues to expand in Kentucky and Tennessee.

Growers' intentions as of July 1 point to about 9.7 million acres of soybeans for harvest as beans; this is 6 percent less than the 10.3 million acres harvested last year, but still well above the 10-year average of 8 million acres.

Reports of Soybean Digest correspondents follow:

U. S. SOYBEAN ACREAGE*

State	Acreage grown alone for all purposes 1949	Acreage for beans: Harvested Average: 1938-47	Acreage for beans: Harvested 1948	Acreage for beans: For harvest 1949
	Thousand Acres			
N. Y.	5	10	5	4
N. J.	26	10	11	12
Pa.	44	22	16	18
Ohio	912	844	908	862
Ind.	1,467	1,128	1,451	1,335
Ill.	3,254	2,852	3,271	3,108
Mich.	70	91	65	60
Wis.	52	34	15	20
Minn.	759	293	844	729
Iowa	1,332	1,345	1,541	1,305
Mo.	823	434	795	795
N. Dak.	14	[1] 6	7	12
S. Dak.	33	[1] 16	31	31
Nebr.	17	23	23	16
Kans.	229	139	167	213
Del.	63	33	41	44
Md.	63	28	33	33
Va.	147	68	106	117
W. Va.	16	1	1	1
N. C.	353	212	264	268
S. C.	65	12	22	23
Ga.	58	12	15	14
Fla.				
Ky.	213	59	121	136
Tenn.	228	39	67	64
Ala.	150	23	51	54
Miss.	235	79	133	116
Ark.	306	179	264	254
La.	109	26	35	32
Okla.	19	6	8	10
Tex.	5			
U. S.	11,067	8,025	10,311	99,686

[1] Short-time average.
*USDA crop reporting board July 11.

ARKANSAS

Jake Hartz, Jr., Jacob Hartz Seed Co., Inc., Stuttgart for southeast and south central (*July* 25): Early plantings normal maturity. June plantings 1 week late. Too much rain. Stands spotted due to rain at planting. Yields under last year. 25% would be caught by earlier-than-normal frost. Some fields not cultivated first time. Small amount of storage being built, mostly for rice.

FLORIDA

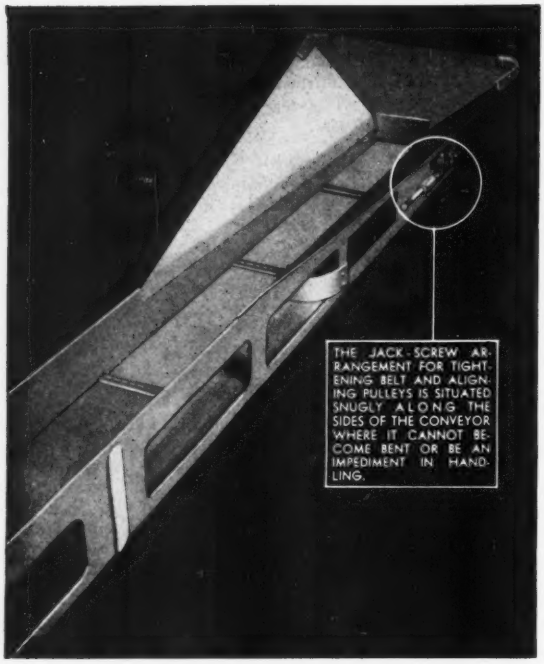
E. N. Stephens, county agent, Pensacola, Fla., for Escambia County (*July* 25): Maturity normal. Excessive moisture. Within 1 inch of 70-year record for first 6 months 1949. Young beans need cultivation. Weather conditions will not permit. Older beans in good shape. Yield outlook good.

ILLINOIS

Walter W. McLaughlin, Citizens National Bank of Decatur, Decatur, for vicinity (*July* 23): Maturity of crop 110% of normal. Weather ideal. Beans forming pods. Prospect unusually fine. Weed situation well under control except in a few fields that were drilled. Little on-the-farm storage being built.

Gilbert F. Smith, Mahomet, for east central and central (*July* 25): Bean crop well along in maturity, 3-4 days ahead. Good rain July 21 from Springfield to Champaign. Looks like good average yield all along road. Some velvet weeds and pig weeds beginning to show above beans, but less corn in beans than for several years. Grasshopper threat past for most fields. Considerable inquiry in our lumber yard for corn and bean storage, mostly from tenants. Owners not excited.

W. L. Burlison, department of agronomy, University of Illinois, Urbana, (*July* 26): Crop considerably ahead of normal. Weather and moisture condition fine. Yield outlook much better than average. Plenty of weeds. Diseases not as prevalent as some times in past. We have finest soybeans in 40 years I



ANNOUNCING OU
MODEL CAS
SEED AND GR

MILLS and GINS were the PROVING GROUNDS for this NEW and IMPROVED SEPCO SEED and GRAIN CONVEYOR.

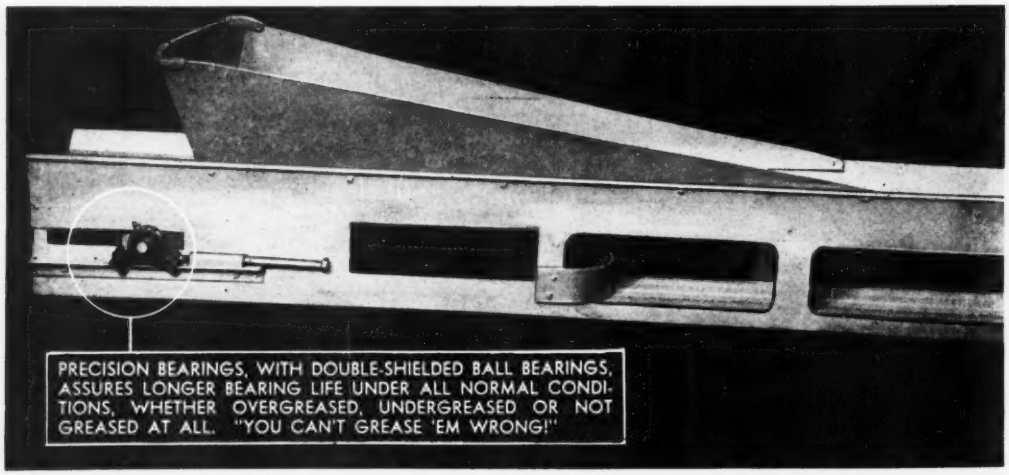
Here is a Seed and Grain Conveyor that has been designed by a large cross section of the Processors and handlers of Cotton Seed, Corn, Soybeans and Peanuts in the South, Southeast and Southwest. Their many years experience have served as our source of information for the building of a seed and grain conveyor that will efficiently and economically take care of one of their annoying and labor wasting problems of material handling.

Built into this loader is the splendid ideas and suggestions of many of those who have used this loader in the past. It is truly a product of teamwork.

SEE OUR EXHIBIT

SOYBEAN CONVENTION, SEPT. 6, 7, 8.

PARLOR H, NICOLLET HOTEL, MINNEAPOLIS

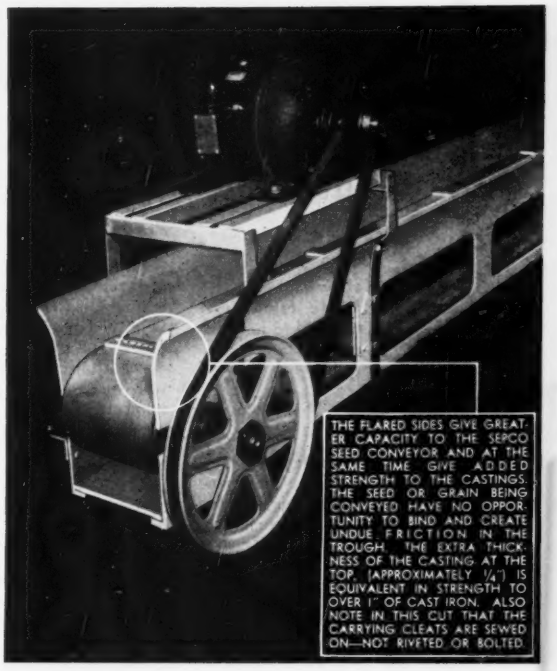


S
P.

1949 STANDARD ALUMINUM IN CONVEYOR

CREATED by its users — PROVEN in the field — BUILT IN THE SOUTH.

In this Seed and Grain Conveyor we have developed a machine that will save many, many hours of labor—a machine that is very light but very durable in construction, and will actually handle more seed than more expensive and heavier machines designed for the same purpose.



SPECIFICATIONS ON STANDARD MODEL

Sides are made of 3/16" Cast Aluminum Alloy up to the flare and are increased to ¼" at top of flare. Trough is 6" wide at bottom and flared to 9" at top—and is 4¼" deep. The over-all height of sides is 10". Bottoms of trough are made of permanent outdoor specially treated Marine Plywood of ¼" thickness. Pulleys are made of centrifugally cast aluminum alloy. All bearings on Conveyor, as well as motor are ball bearing. Hopper is made of 16 gauge steel sheet 24" wide at back, 9¼" high and 4' long. Conveyor belt is made of oil resisting Duck and Neoprene that is specially built for our Conveyors. The Conveying Cleats are made of Duck and Neoprene and are sewed on. The over-all length of the Conveyor is 18 feet. Standard model is equipped with ¾ H.P. Electric Motor with 25 feet of extension cord. The total weight less motor is 170 pounds, with motor 215 pounds.

Note: Above specifications cover our Standard Model. We can furnish this conveyor in lengths of 13½ ft., 18 ft., and 22½ ft., and in widths of 6", 8", 10", 12", 14", 16", and 18". We can also equip the conveyor with any h.p. motor or gasoline engine desired, or 20 feet of flexible steel shafting for taking power direct from truck on which seed is hauled.

Complete literature will be gladly furnished upon request. Write today.

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BOX 2310 BIRMINGHAM, ALABAMA

have been acquainted with soybean production in Illinois.

J. E. Johnson, Champaign, for Champaign and adjoining counties (July 25): Plant growth 2 weeks earlier than normal. Expect harvest to be week earlier than 1948 crop. 60% of territory in good moisture condition, 25% fair, 15% poor. Yield could be some higher than 1948. Do not expect high yields of some years back. Do not expect weed situation to be serious or much of factor in total yield. Some grasshopper leaf cutting on border of fields. Unless spraying of clover fields and roadsides is done would expect some damage from hoppers when pods are setting. Will be large number of small steel bins erected on farms. Local elevators erecting large amount of good storage. Do not expect storage situation to be serious. Some selling of new crop at $2 to $2.05. Growers not selling heavily. Few sell as many as 20 bushels per acre.

Robert W. Weitzer, Valley Farms Co., Carrollton, Ill., for west central (July 26): Maturity somewhat earlier on early beans, but small percentage planted after wheat about July 15. Weather hot and humid. Valley Farms had 4¼ in. rain in 24 hours. Looks like a terrific yield. Most plants of Rickard Korean and Hawkeye laden with pods. Wabash just blooming. Where beans planted in 18-inch rows and cultivated twice not many weeds. The wider the row the more weeds as wet weather held down cultivation. A few grasshoppers but not dangerous yet. Valley Farms built an additional 11,000-bushel storage and others plan additional storage.

E. E. Eversole, Hindsboro, for Douglas, Coles, Moultrie and part of Piatt and Champaign Counties (July 26): From Hindsboro west to Arcola beans excellent, good height, rich green color. Some corn fired 8 to 12 in. From Arcolo north to Tuscola more grain. Crops good. Tuscola to Atwood to Hammond very good. From Hammond north to Bement and Monticello excellent. From Monticello north and east about 15 miles then south to Bement area again then east to Villa Grove in Douglas County very good beans, good height, rich looking. From Villa Grove south to Camergo and on to Hindsboro above average for July 23 but not so good as Bement area. July 20, through Coles County, condition good. Maturity should be early, possibly Sept. 15 for some beans. Looks like very good yield. Did not see any construction of new bins or cribs. Nearly all cribs now filled with 1948 ear corn. Our local elevator has total capacity 135,000 bushels, not nearly enough. Elevator manager reports 12,000 bushels new beans contracted for at $2 to $2.10 per bushel.

INDIANA

Ersel Walley, Walley Agricultural Service, Fort Wayne 2, for northeast Indiana and northwest Ohio (July 25): Maturity of 80% of crop normal or ahead; 20% 10-15 days late. Plenty moisture, too much in some localities. Yield per acre can be equal to 1948. Total production likely down 10-15% largely due to drop in acreage.

J. B. Edmondson, Danville, for south central (July 25): Maturity week to 10 days ahead of past 2 years. Podding started at lower regions. Weather about as nearly perfect as one could order from planting time on. Unusually tall growth this season which indicates yield of 5-10% above last year. Practically all in rows and weeds under good control. More corn in beans than usual. Freer from disease apparently than for some seasons. Some live interest being shown in on-the-farm storage.

Peter J. Lux, PMA, Indianapolis,

for central (July 25): Maturity early. Moisture and weather conditions very good. Yield outlook good. Weed situation not bad. Some on-the-farm storage being built.

IOWA

O. N. LaFollette, State Department of Agriculture, Des Moines (July 22): Moderately good supply of moisture in most of state. Yield outlook good. Weed situation about average. Some pest damage. Diseases reported in some areas but not alarming. Very little farm storage being built.

Otis J. Luttschwager, State PMA, Buckeye (July 27): Maturity of crop ahead of average. Weather and moisture conditions generally excellent. Yield outlook excellent. Weed situation generally excellent. On-the-farm storage being built mainly for corn. After trip through western and west central Iowa am convinced that soybean acreage is down much more than our earlier estimates. Would not be surprised to see soybean acreage in Iowa drop from 1/3 to 2/5 when final figures available.

Fred W. Hawthorn, Castana, for western (July 25): Maturity normal. Some dry spots but generally favorable weather. Yield outlook normal. Fields mostly clean. Grasshoppers bad. Very little on-the-farm storage being built.

John Sand, Marcus, for northwest (July 29): Season has been ideal so far. With normal conditions from now on we should have good soybean crop. With part of acreage planted to Hawkeyes should help yield and lessen frost damage. Fields apparently cleaner of weeds than normal. With good growing conditions apparently very little damage from diseases or pests.

KANSAS

Kansas Weekly Crop Report (July 19): Soybeans continued to make good growth and prospects very favorable. *(July 26)*: Grasshoppers problem in some fields.

H. L. Collins, Topeka (July 23): Maturity 110%. Crop has made excellent growth and development. An abundance of soil moisture. Yield outlook above average. A few bottom fields are weedy. Otherwise crop clean. Grasshoppers damaging a few fields. Storage ample. Little additional being constructed.

E. A. Cleavinger, extension agricultural specialist, for eastern (July 22): Season about normal for maturity and moisture conditions good up to present. Rain needed soon. Expect normal yield. Most fields reasonably clean. Grasshoppers bad some sections.

LOUISIANA

W. M. Scott, Tallulah, for northeast (July 25): Maturity 10-15 days late. Excess of moisture. Some fields where worked yield outlook good. Where too much rain prevented working fields have too much grass and weeds to produce many beans. 15% of crop has been abandoned. Plenty of insects. We expect to poison as beans get into full bloom stage. Reduction in soybean acreage will ease storage problem some.

MINNESOTA

R. E. Hodgson, Waseca, for southeast (July 22): Maturity a little ahead of normal. Drouth conditions in this locality. Yield outlook good. Fields perhaps a little cleaner than usual. Some insect damage on particular fields. Nothing very serious so far over whole area. Extreme drouth during blossoming may affect yield.

John W. Evans, Montevideo, for southwest central (July 25): Maturity advanced. Early planted varieties forming beans. Weather and moisture conditions excellent. Yield outlook good. Fields generally very clean. Subject of storage receiving thought but plans slow in development.

MISSOURI

J. Ross Fleetwood, extension specialist, University of Missouri, Columbia (July 25): Maturity about normal in southeast district; some late in northeast district. Ample moisture everywhere. Too much in some areas. Yield outlook very good at present except for weeds and grass. Some grasshoppers and occasional disease. Nothing serious at present.

Edward Tillman, Missouri Soybean Co., Caruthersville, for southeast (July 26): Maturity about normal. Plenty of moisture. Yield outlook very good. Some weeds showing. Not enough on-the-farm storage being built.

Heartsill Banks, O. H. Acom Farms Inc., Wardell, Mo., for southeast (July 25): Maturity 100% of normal. Too much rain in most parts. Some extremely late beans going in on abandoned cotton acreage. S-100 where available, otherwise mostly Ogden. Yield outlook for early beans excellent, late beans uncertain. Some commercial storage going in at Hayti.

—Des Moines Register photo.

Don Morningstar, Polk County, Iowa, farmer, sprays 25-acre soybean field with toxaphene to destroy grasshoppers that moved into field after second crop of alfalfa was harvested from an adjoining field. Grasshoppers were moving from hay and small grain fields to do much damage to Iowa corn and soybeans early in July.

NEBRASKA

Harry E. Wiysel, Fremont Cake & Meal Co., Fremont, for east (July 22): Maturity about normal. Weather good and moisture adequate. Prospect for above average yields. Beans generally clean.

NEW JERSEY

John E. Baylor, assistant extension specialist in farm crops, New Brunswick (July 25): Maturity about normal. Severe drought in June caused poor germination on early planted beans. Late planted beans responding well to recent rains. Moisture at present adequate for surviving stands. Yield early planted beans 30-40% lower than normal due to drought. Late planted beans normal.

NORTH DAKOTA

W. P. Sebens, field representative, Greater North Dakota Association, Fargo (July 23): Maturity week to 10 days ahead of normal most places. Weather and moisture conditions very spotted; excessive rains in some of best soybean areas and dry in others. Yield outlook about normal. Only small percentage of fields badly infested with weeds. No great amount of farm grain storage being built this year as grain crop not as heavy as former years.

C. J. Heltemes, agricultural statistician, Fargo, for eastern (July 25): Maturity normal or better. Weather and moisture conditions ample to excessive. Beans in low spots yellow from excess moisture. Soybeans ahead of weeds. New farm storage being built but probably not for soybeans.

OHIO

G. G. McIlroy, Irwin, for west central (July 23): Maturity about as usual. Weather and moisture conditions very good to date. Good showers past week have kept us from dry side. Yield outlook normal. Very little evidence of construction of new storage in this area.

D. G. Wing, Mechanicsburg for west central (July 23): Maturity 1-2 weeks in advance of normal. Beans waist high with pods and bloom. Ideal moisture and heat. Rain has come when needed. Yield outlook above average. Solid planted beans will have lots of weeds. Cultivated fields good.

ONTARIO

R. H. Peck, River Canard, Ontario, Canada, for southwestern Ontario (July 27): Maturity about week earlier than average. Very good growing weather but moisture conditions spotty varying from good to just sufficient to maintain growth. Yield outlook about average. Weed situation better on average than usual. Some late planted beans have made poor growth with dry weather.

PENNSYLVANIA

E. L. Gasteiger, agricultural statistician, Harrisburg (July 25): Maturity 1 week-10 days early. Weather and moisture conditions fair. Need more moisture for best growth. Yield outlook average. Very good weed control. A few Jap beetles, not serious.

TENNESSEE

Peter Fredrickson, Tiptonville, for west Tennessee and Fulton County, Ky. (July 23): Maturity of crop 10 days early. Weather and moisture conditions good. Yield outlook average. Some fields weedy.

VIRGINIA

Henry M. Taylor, Richmond (July 25): Weather and moisture conditions excellent. Moisture ample to surplus. Yield outlook excellent. Late crop not cultivated thoroughly because of frequent rains.

WEST VIRGINIA

R. J. Friant, extension agronomist, Morgantown (July 29): Crop planted few days late. Weather and moisture conditions favorable. Yield outlook good. Fields weedy due to wet soil. Some little bean beetle damage.

WISCONSIN

John P. Dries, Saukville, for southeastern (July 26): Maturity 90% of normal. Weather and moisture conditions good. Yield outlook very favorable. Row plantings show better weed control.

ARNY PIONEERED MINNESOTA SOYBEANS

One of the pioneers in the field of soybean research is A. C. Arny, associate professor of agronomy emeritus at the University of Minnesota. He started the University's soybean work in 1909. At that time practically no soybeans were grown in Minnesota. Now nearly 40 years later soybean acreage in the state approaches the million acre mark.

Minnesota's first experimental projects centered around the development of new varieties and testing varieties from other states. By 1916, five new varieties were ready for testing. They included Minsoy, Habaro, Chestnut, Soysota, and Elton. Along with Wisconsin Black these varieties were tested in fields throughout the state.

Later tests were expanded to include tests on both seed and hay yields.

With the increase in interest in soybean seed for oil production, research at Minnesota was given an added impetus in the late thirties. This trend made the determination of oil content an important part of research activities. Variety recommendations of the University of Minnesota Agricultural Experiment Station took this factor into consideration shortly after Arny's studies were begun.

Low oil content resulted in dropping several varieties from the state's recommended list. In 1945 two Canadian soybeans, Kabott and Ottawa Mandarin as well as Manchu Wisconsin 606 were found to have satisfactory oil content and were, therefore, added to the list. Another Wisconsin variety, Flambeau, was studied and accepted in 1946.

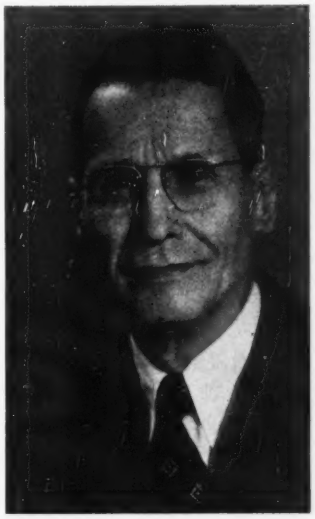
In 1943 Arny started joint soybean growing tests with the U. S. Soybean Laboratory. These tests will bring even better soybeans to Minnesota, he believes.

During his years at the University of Minnesota, Arny also made extensive studies on soybean culture, emphasizing particularly date of planting, method of planting, and use of soybeans in mixtures with other crops.

A native of Washington county, Minn., Arny was graduated from the University of Minnesota in 1909. Immediately following graduation he started working with the University. He retired in 1945.

As a member of the Minnesota Agricultural Experiment Station staff Arny also worked on the weed eradication, crop rotation, flax improvement, forage crops, and pasture and pasture crop projects.

A. C. ARNY



Publications

SOY PROCESSING AND TRANSPORTATION

The importance of various aspects of transportation to the soybean processing industry and their influence on the location of processing plants is the subject of a doctor's thesis by Earl Clifford Hedlund at the University of Illinois.

Hedlund says the following are the most important factors affecting the location of soybean processing plants:

1—The necessity of locating so as to be able to reach many widespread markets.

2—The existence of the processing-in-transit privilege.

3—The 5 percent weight lost in processing.

4—The non-application of the through rate to soybean oil under transit.

5—The relationship between rates on soybeans and those on processed products.

"In general, transit in soybean processing favors: location at the raw material area," says Hedlund; "encourages large scale plant operation; allows for reaching of diverse markets for joint soybean products from a centrally located plant; and reduces transportation costs.

"On the other hand it is discriminatory; is a force tending to equalize competition and geographic advantage; allows for a great deal of wasteful transportation; and does not appear to be remunerative to the carriers.

"The weight lost in processing soybeans favors plant location on the raw material area. The non-application of transit to oil favors processing at the oil markets.

"The key to soybean plant location is the relationship between raw material and product rates. Large differences between these rates can force location toward the markets when ordinarily the commodity is raw material oriented.

"A wise entrepreneur will consider closely the costs of transportation associated with processing at different points before choosing a location for processing soybeans."

THE TRANSPORTATION ECONOMICS OF THE SOYBEAN PROCESSING INDUSTRY, by Earl Clifford Hedlund. Abstract of thesis. University of Illinois, Urbana, Ill.

Solvent vs. Expeller

A year ago a metabolism experiment was reported by the Oklahoma Agricultural Experiment Station in which cottonseed and soybean oil meals prepared by pressure and solvent methods were added to prairie hay to supply steers with winter rations. There was no essential difference in the value of the various meals for supplying the needed protein.

During the past year an experiment was conducted at the Oklahoma station to compare the value of the same meals when used to supplement fattening rations. Four yearling Hereford steers were used in the experiment. Each steer received a different supplement, including hydraulic cottonseed meal, solvent cottonseed meal, Expeller soybean oil meal and solvent soybean oil meal.

The intake of the supplementary meals was adjusted to equalize the protein levels of the four rations.

The apparent digestibility of the protein was somewhat higher with rations supplemented with soybean oil meal than for those supplemented with cottonseed meal, but differences were not marked.

Results indicate that steers can use the solvent processed meals to as good advantage as the meals processed by the other methods. Overall values of the rations were not significantly altered by varying the source or method of processing the meals used.

INFLUENCE OF METHOD OF PREPARATION OF COTTONSEED AND SOYBEAN MEALS ON THEIR SUPPLEMENTAL VALUE IN FATTENING RATIONS FOR CATTLE. By H. M. Briggs, W. D. Gallup and E. E. Hatfield. Feeding and Breeding Tests. Miscellaneous Publication No. MP-15, May 1949. Oklahoma Agricultural Experiment Station, Stillwater, Okla.

Drying Oils

Attempts to prepare replacement oils for tung and oiticica oils by isomerization of soybean and linseed oils have not been entirely successful.

However, the isomerized oils are in general superior to the oils from which they were derived in all respects except film-hardness after drying. Lack of film-hardness is believed to be due to the presence of elaidinized derivatives of oleic acid in the oil.

The study of methods of achieving conjugation is complicated principally by the large number of conjugated isomers which may be formed and the lack of methods of studying these isomers.

ISOMERIZATION REACTIONS OF DRYING OILS, by J. C. Cowan,

Northern Regional Research Laboratory, Peoria, Ill. Industrial and Engineering Chemistry, 294-304, 1949.

Trichloroethylene

A solvent consisting of denatured alcohol mixed with trichloroethylene to give a specific gravity of 0.910 can be used successfully in a continuous extraction plant to remove oil from soybeans. The extraction is carried out at 70° and the miscella cooled to cause it to separate into two phases.

The lower phase can be separated and stripped to remove the solvent while the upper phase can be returned to the system without evaporation to extract more oil.

The moisture content in the solvent will not build up if beans having less than 6 percent moisture are used and the drying is done with 10-lb. per square inch steam pressure on the drier.

SOLVENT EXTRACTION OF SOYBEAN OIL BY MIXTURES OF TRICHLOROETHYLENE AND ETHYLENE ALCOHOL, by S. G. Measmer, O. R. Sweeney and L. K. Arnold. Proceedings of the Iowa Academy of Sciences, 1947.

Miscellaneous

EXTRACTION OF SOYBEAN OIL BY TRICHLOROETHYLENE. By O. R. Sweeney, L. K. Arnold and E. G. Hollowell. Bulletin 165, Iowa Engineering Experiment Station. Iowa State College Bulletin, Ames, Iowa.

Describes the solvent extraction processing of soybean oil with trichloroethylene that has been developed at Iowa State College. An article on this subject by Dr. Arnold will appear in an early issue of Soybean Digest.

Equipment is being manufactured by Crown Iron Works Co., Minneapolis, Minn.

MUNGBEANS AS A POULTRY FEED, by Rollin H. Thayer and V. G. Heller, Bulletin No. B-336, June 1949. Oklahoma Agricultural Experiment Station, Stillwater, Okla.

EXTRACTION OF SOYBEAN PROTEIN WITH SULFUROUS ACID, by L. L. McKinney and W. F. Sollars, Northern Regional Research Laboratory, Industrial and Engineering Chemistry, Washington, D. C. May 1949.

THE VERSATILE ROLE OF SOYBEAN OIL IN COATINGS, by A. G. Hovey. Official Digest Federation Paint & Varnish Production Clubs. No. 234, 697-711 (1948).

A review with 36 references.

LEGUME INOCULATION: WHAT IT IS: WHAT IT DOES. By Lewis W. Erdman, bacteriologist, Agricultural Research Administration. Farmers Bulletin No. 2003. U. S. Department of Agriculture, Washington 25, D. C.

SYNTHETIC DRYING OILS. By D. S. Bolley, National Lead Co., Brooklyn, N. Y. Industrial and Engineering Chemistry, 287-293 (1949).

Information from extensive tests with linseed and soybean pentaerythritol oils is tabulated. 46 references.

—sbd—

Please mention the *Soybean Digest* when writing to our advertisers.

GRITS and FLAKES... FROM THE WORLD OF SOY

Allison & Co. has remodeled its office and will erect a 32,000 bushel granary storage unit at Mason City, Ill. The firm is constructing three new units at Elkhart with a total capacity of 100,000 bushels.

* * * *

An operating all-metal low-head gyratory sifter, recent addition to the Allis-Chalmers line of milling machinery, will be displayed at the American Soybean Association convention Sept. 6, 7 and 8 in Minneapolis. Another feature will be projection of colored slides showing installation views of Allis-Chalmers solvent extraction equipment in soybean and cottonseed plants.

* * * *

Weston Grain Co., Chenoa, Ill., has awarded a contract to the Eikenberry Construction Co. for construction of a 110,000-bushel elevator to replace the one that burned in 1946. The new structure will be finished for storage of soybeans and other crops this fall.

* * * *

Foosland Grain Co., Foosland, Ill., has installed a new loading spout, and done some remodeling.

* * * *

The Seedburo organization is distributing a colored wall poster to elevators and processing plants outlining the eight-step procedure in grading soybeans under the revised regulations of the Grain Branch of the U. S. Department of Agriculture. Write Seedburo Equipment Co., 729 Converse Building, Chicago 6, Ill.

* * * *

A new $250,000 oil mill to be known as Belzoni Oil Works is under construction at Belzoni, Miss. It is a 60-ton solvent plant to process soybeans and will have a capacity for storing 250,000 bushels of soybeans. It is expected to be in operation by October 1.

* * * *

The Rardin Grain Co., operating elevators at Kansas and Warrington, Ill., has leased three elevators belonging to E. Perry Huston at Mays, and Vermillion, Ill., and St. Bernice, Ind. The three elevators were opened for business by the Rardin firm June 1.

* * * *

The Macon County Grain Co., has purchased the Prairie Hall, Ill., elevator from McBee Grain Co. of Lovington and taken possession of the business. Jack E. Shelton, Lovington, is new manager.

NEW HEAD OF OFAR

STANLEY ANDREWS

Appointment of Stanley Andrews as director of the Office of Foreign Agricultural Relations of the U. S. Department of Agriculture was announced by Secretary of Agriculture Charles F. Brannan. Andrews fills the position recently held by Dennis A. FitzGerald, director of the Food and Agriculture Division of the Economic Cooperation Administration. Fred J. Rossiter has been acting director of the Office.

Andrews somes to his present position from service in Germany

There's More Than Jute in Bemis Bur-r-rlap Bags!

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Soybean acreage and production by counties for 1947 are covered in Nebraska Agricultural Statistics for 1947 issued by the Nebraska Department of Agriculture and Statistics, Lincoln, Nebr. Only central and eastern counties are shown as this is where all significant soybean production in Nebraska is located.

* * * *

New brochure on aluminum irrigation siphons may be obtained without cost by writing Reynolds Metals Co., 2000 S. Ninth St., Louisville 1, Ky.

* * * *

James Womack, 17-year-old 4-Her, of St. Clair County, Ill., received the W. G. Skelly Agricultural Achievement Award July 30. The youth has included 25 acres of soybeans in his project this year.

* * * *

Bemis Bro. Bag Co., St. Louis, Mo., has added polyethylene-lined paper bags to its list of specialty products.

* * * *

Clyde Hendrix, president of the soy and feed division of Pillsbury Mills, Clinton, Iowa, was named chairman of the Iowa development commission recently. Gov. William S. Beardsley made the appointment.

* * * *

The year's outstanding salesmen of Pillsbury's feed and soy division were honored recently at ceremonies at Clinton, Iowa.

* * * *

James R. Pentis has been named manager of the Chicago office of Borden's Soy Processing Co., which has headquarters in Waterloo, Iowa. His appointment emphasizes the steady growth and expansion of the Borden Co.'s operation in the soybean field, according to Charles F. Kieser, vice president in charge of the special products division.

* * * *

Rink & Schieb, Edinburg, Ill., recently completed enlarging and remodeling their offices and salesroom.

* * * *

A new railroad station near Macon, Ga., has been named "Glidden" for the Glidden Co., Cleveland, Ohio, which established a new margarine plant under General Clay as chief of the Food, Agriculture and Forestry Group of the Military Government for Western Germany. In this position he was responsible for organizing the production and supply of food for the airlift to Berlin as well as for general food and agricultural activities for Western Germany territory under United States, British, and French administration.

—s b d—

O. K. QUIVEY PASSES

O. K. Quivey, 63, manager of agricultural development of the Baltimore and Ohio Railroad, died at his home at Baltimore, Md., July 21.

He had been associated with the agricultural activities of the railroad since 1917, except for a 3-year period at the close of World War I.

Quivey was well known throughout the rural areas along the B & O lines because of his department's work in soil conservation and increased crop production. He long actively promoted soybean growing and the railroad has backed campaigns for planting of adapted varieties in recent years.

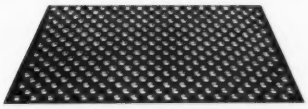
But the Soybean Special trains that toured leading soybean states

O. K. QUIVEY

just before World War II attracted most attention. Quivey set these up. The Soybean Special included lecture and exhibit cars, as well as a car devoted to a soybean cooking school.

The Special created a tremendous amount of interest in soybean growing as a crop. In 1941 the train made 51 stops in Ohio, Indiana and Illinois and was visited by 20,000 people. — s b d —

NEW GRADING SCREEN



A new and exclusive type of cleaning or grading screen is announced by The Bauer Bros. Co., 1723 Sheridan Ave., Springfield, Ohio. It is perforated metal with the holes dished to give the openings rounded lips. Viewed from the lower side, the openings are flanged; hence the plates are termed "flanged" screens. Sticks, stems, and straw glide over the holes without being snagged and upended as would be the case if the edges of the openings were sharp.

there recently. The station will be a permanent shipping point for the new plant.

* * * *

Clayton I. Vogt was named plant superintendent for the Glidden Co.'s new soya extraction plant at Indianapolis, Ind. Malcom M. Darling was appointed superintendent of the new 2,500,000-bushel grain elevator being constructed adjacent to the soya plant. Vogt will assume his new position late this summer as the new plant should be in operation before the fall soybean crop.

* * * *

A replacement demand for farm machinery that will be greater than total sales before the war and a second round of mechanization were forecast by William A. Roberts, who heads the farm equipment division of Allis-Chalmers Manufacturing Co. Business Week published an interview with Roberts in its June 25 issue.

* * * *

Dike Cooperative Co., Dike, Iowa, will soon complete work on new grain storage facilities making a total of 510,000 *bushels for this plant. Work was done by Tillotsen Construction Co., Omaha, Nebr.*

* * * *

B. J. Wallace, Clifton, Ill., will enlarge his local elevator by adding four concrete bins with storage capacity of 35,000 bushels, bringing total capacity of this plant to 100,000 bushels.

* * * *

The board of directors of Chicago Board of Trade has announced the appointment of the following to membership: Frank A. Becker, Anglo American Provisions Co.; Thomas P. Fitzmaurice, Illinois Grain Corp.; Tracy L. Turner, Shearson Hammill & Co.; Hugh H. McGarrity; Irvin A. Hinz, J. J. Badenoch Co., and Harold P. Bates, Pennsylvania Railroad all of Chicago; Sidney B. Shear; Henry H. Badenberger, Francis I. duPont & Co., and Jack Meyer, vice president of Bunge Corp. all of New York City; Herman K. Schafer, president Maney Milling Co., Omaha, Nebr.; and Wm. L. Shellabarger, president of Shellabarger Mills, Inc., Decatur, Ill.

* * * *

Link-Belt Gearmotors are featured in a new 12-page book No. 1815A released by Link-Belt Co. to replace all previous catalogs on this subject. Book is available upon request from Link-Belt Co., 307 N. Michigan Ave., Chicago, Ill.

* * * *

Russell T. Stern of Merrill Lynch, Pierce, Fenner & Beane, Chicago, has been elected to membership in the Chicago Board of Trade.

* * * *

Bemis Bro. Bag Co., St. Louis, has announced the retirement of Ernest B. Roberts as manager of the paper mill and bag factory at Peoria, Ill. L. J. Finn, assistant manager, has been appointed to succeed Roberts.

* * * *

Roland McKee, plant scientist responsible for the introduction and development of many new legumes, has retired from USDA after more than 43 years of service. A native of Marysville, Kans., and a graduate of Kansas State College, McKee joined USDA as a scientific assistant in 1905.

Bauer Bros. Co., Springfield, Ohio, has just published a new catalog describing complete line of Bauer process equipment. A copy may be obtained by writing Bauer Bros. Co., 1723 Sheridan Ave., Springfield, Ohio.

* * * *

James E. Skidmore, vice president of General Mills, Inc., Chicago was recently transferred to the Minneapolis office.

* * * *

Appointment of James W. Moller as Pacific Coast division manager of John F. Jelke Co. of Chicago, has been announced by James M. Elliott, president.

* * * *

Earl H. Hanson, St. Louis, Mo., feed formula specialist, has joined the nutritional research department of Archer-Daniels-Midland Co., Minneapolis. He will serve as assistant to Dr. J. W. Hayward, director, and will specialize on formulas. He has been a member of the product control department of the Ralston Purina Co., St. Louis.

* * * *

Farmers Cooperative Co., Dike, Iowa, had open house on July 29 to allow the public to see its facilities in operation. Coffee and doughnuts were served.

* * * *

H. D. McKinley has been appointed works manager of the new degreasing-solvent manufacturing plant being erected by Hooker-Detrex, Inc., at Ashtabula, Ohio. He is transfering from his position as manager of the solvents division of Detrex Corp.

* * * *

A revised, 48-page bulletin on high vacuum pumps and accessory apparatus has been issued by Central Scientific Co., Chicago, Ill. Title is "High Vacuum Equipment," Bulletin 10-A, department BS.

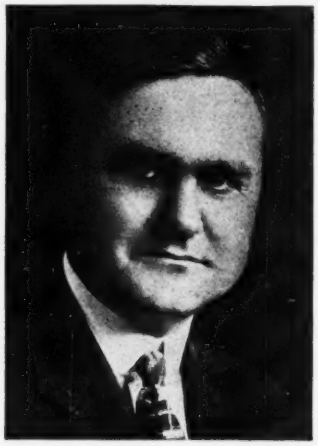
* * * *

Corn States Hybrid Service, Des Moines, Iowa has announced a permanent farm drying-handling-storage unit which can be erected quickly to handle this year's crop. Included are a Campbell Farm Dryer with capacity to dry 1,000 bushels of shelled corn per day and light steel grain bins. This provides a storage capacity of 17,600 bushels.

* * * *

Edward J. Burnell, vice president and general sales manager and director of Link-Belt Co., died at his home in Winnetka, Ill., July 22 after an illness of several months.

NORTON TO EUROPE



L. J. NORTON

Developments affecting the demand for U. S. fats and oils and related meat products in European countries are being studied firsthand by Dr. L. J. Norton, agricultural economist and fats and oils specialist, while on leave from the University of Illinois, Urbana.

Dr. Norton is undertaking the study for Office of Foreign Agricultural Relations under the Research and Marketing Act.

After arriving in London about July 22, Dr. Norton will spend nearly 6 months in the United Kingdom, France, Belgium, The Netherlands, Western Germany, Denmark, Czechoslovakia, Poland, Switzerland and Italy.

WASHINGTON Digest

SUPPORT PRICE. The support price for soybeans grown this year will continue at 90 percent of parity. This rate is expected to be approximately $2.10 a bushel for No. 2 beans with not more than 14 percent moisture.

Soybeans must grade No. 4 or better to be eligible for loans and government purchase agreements, and contain not more than 14 percent moisture. A 1-cent-a-bushel premium is allowed for green and yellow varieties; a discount of 19 cents for black, brown and mixed varieties.

The official soybean price support will be established early in September, and will be based on "comparable parity" for soybeans as of Sept. 1.

Soybean price support in 1950 depends on what Congress finally comes up with in the way of new price legislation.

The newly-passed House bill would extend the present support—60 to 90 percent of parity — for another year. The Aiken Act, which is due to go into effect next year unless changed, would give soybeans zero to 90 percent of parity support.

Any possible test of the Brannan plan next year was knocked out by the House action. There is a possibility that a compromise might be worked out, which would permit higher levels of support for storable crops than the Aiken Act, and reduce its "flexibility" of support.

● COTTONSEED, TOO. Cottonseed will be supported this year for the first time. Rate of support will be 90 percent of August 1 parity or a little under $50 a ton. Method of support will be through loans to farmers with seed containing 10 percent moisture or less eligible. Effectiveness of the new loan program depends on how well farmers take to it.

Officials estimate as much as 60 percent of cottonseed in the Southeast would meet eligibility requirements and practically the entire crop in the Southwest. They figure if as much as a third of the cottonseed crop goes under loan, prices will be held at or close to the support level.

The new price support program developed from strong pressures by Southern Congressmen and organizations to put a floor under cottonseed comparable with that of other oilseeds.

Mandatory support for cottonseed also was written into the House-passed Gore price support bill. It would authorize a price floor of not more than parity, but in line with that given other oilseed crops.

By PORTER M. HEDGE

Washington Correspondent for The Soybean Digest

● CCC BEANS. The Army is taking 4 million bushels of 1948-crop soybeans off Commodity Credit Corporation's hands for export to U. S. occupied areas, 2,100,000 bushels for Germany and 1,900,000 for Japan. These are from stocks accumulated in price support operations on the 1948 crop.

The total of 1948 beans taken over by CCC had not been figured up to the beginning of this month. Approximately 10½ million bushels had been put under loan or purchase agreement last year. CCC doesn't expect to take over this many beans, due to improvement in prices at the time loans and purchase agreements matured.

MARGARINE BILL. "I am just as much interested in the oleomargarine bill as is the Senator, and I can virtually assure him that we are going to consider that bill before we conclude the present session."

The speaker was Senate Majority Leader Lucas of Illinois responding on the Senate floor to Senator Fulbright of Arkansas. Fulbright had commented it was "high time" to give the margarine repeal bill consideration.

Senator Lucas said further: "I anticipate that Senators representing dairy states will want to do a little talking on the oleomargarine bill. I do not think they will carry on a filibuster because the Senators from the dairy sections are opposed to filibusters, and I am certain they would not violate this principle on the oleomargarine bill."

Lucas' assurance that the bill would get a hearing this session was cheering to advocates of tax repeal. The feeling is general that if the bill comes to a vote in the Senate, it will pass.

But this may not be soon. Congress hopes to adjourn by mid-August. But it's not expected essential business will be completed until the end of this month, or in September.

E. A. MEYER

● USDA RESHUFFLE. E. A. Meyer has resigned as administrator of the Research and Marketing Act, effective July 29.

In announcing his resignation, Secretary of Agriculture Brannan said that marketing and research functions within the Department would be reassigned. These include:

1. General supervision of marketing programs and policies will be placed under the Assistant Secretary of Agriculture, including marketing activities of various department agencies such as Bureau of Agricultural Economics, Extension Service and Production and Marketing Administration.

2. Administration of the Research and Marketing Act is placed under P. V. Cardon who is administrator of the Agricultural Research Administration. Meyer's staff will work under him.

3. The agricultural research policy committee, the committee of nine, representing the state agricultural experiment stations and commodity advisory committees will be continued.

● COPRA IMPORT TAX. President Truman has reimposed the 2-cents-a-pound processing tax on copra and coconut oil imported from countries other than the Philippines.

The tax was taken off during the fats and oils shortage of the wartime period.

Domestic fats and oils groups as well as the Philippine government favored the reimposition of the tax. Seven such organizations including the American Soybean Association signed a petition recommending this and forwarded it to the President April 29.

Recently the fats and oils supply situation was greatly improved. The international allocation of fats and oils was discontinued in February and the present Philippine production is ample to supply the needs of the U. S. The President's proclamation recognizes these facts.

The proclamation goes into effect August 27. The processing tax on Philippine coconut oil will remain 3 cents per pound, but the tax from other foreign sources will be increased from 3 to 5 cents.

—s b d—

Phytosterols Available

Purified vegetable sterols in tonnage quantities are now available for the first time from Distillation Products, Inc., Rochester, N. Y.

Refined from soybean oil, the sterols are fine white crystals with a minimum purity of 95 percent. They are soluble in acetone (2 gm/100cc), ethanol (2 gm/100cc), and ethyl ether (10 gm/100cc). They melt at 135°-138°C and have a bromine number of approximately 500 gm/kilo.

A sample may be obtained without charge from Distillation Products, Inc., 755 Ridge Road West, Rochester 13, N. Y.

Market Street

We invite the readers of THE SOYBEAN DIGEST to use "MARKET STREET" for their classified advertising. If you have processing machinery, laboratory equipment, soybean seed, or other items of interest to the industry, advertise them here.

Rate: 5c per word per issue.
Minimum insertion $1.00.

FOR SALE—Anderson Expellers, French Screw Presses all models, as is or rebuilt for specific materials. Pittock & Associates, Moylan, Penna.

AVAILABLE—Widely experienced vegetable oil man, 40 years old, recently returned from foreign assignment to reestablish self in this country, preferably with industrial firm. Major consideration, right opportunity for future—starting salary secondary. Twelve years experience in management and trading in U. S. markets and six years in foreign posts, all in vegetable oils and related materials. Replies to Box 319M, Soybean Digest, Hudson, Iowa.

WILL ENGAGE—Manager of Feedstuffs brokers office liberal profit sharing basis. Must be familiar with Feedstuffs of all kinds, including Soybean Meal and Middlings.

Our firm is well established. Been in business for many years. On excellent terms with all oil bearing seed crushers and buyers and also doing very large export/import business with connections all over the world.

Wonderful opportunity for right man who will have his own office but must be fast moving and square shooting. Highest references required. No finance necessary. We will finance entire brokerage operation. Prefer someone between 28 and 40 but age limit flexible. Will want get moving quickly. Answer with full information which will be kept strictly confidential. Write Box 319 R, Soybean Digest, Hudson, Iowa.

In The MARKETS

JULY MARKETS MOVE UP

All markets moved to higher ground in July. The sharpest advances were in soybeans and oil meal, which continued the upward movement begun in June. Soybean meal reached a new high for the year during July.

Soybean and other vegetable oils reflected the strength of the bean and meal markets. Soybean oil worked up to the highest point since March.

The shortage of country supplies of soybeans and governmental activity were factors in boosting the markets upward. Due to light country movement some processors had trouble finding enough soybeans to cover July contracts.

Government activity to bolster oilseed prices included:

1—Announcement that cottonseed will be supported at 90 percent of parity.

2—Reinstatement by President Truman of non-Philippine processing taxes on coconut oil and copra.

3—Extension by USDA of the ban on imports to include soybeans and soybean oil coming in from other countries.

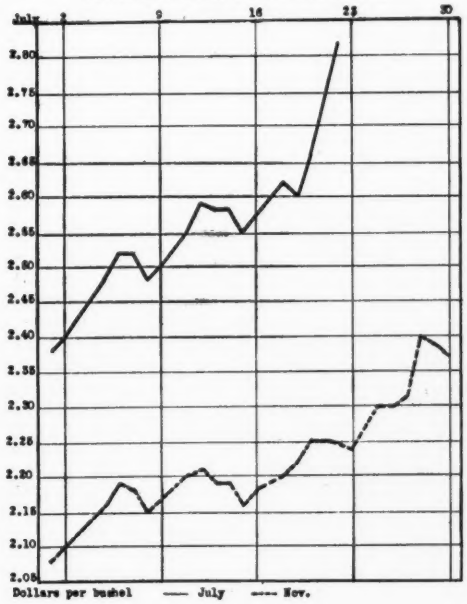
4—Purchase of 4 million bushels of CCC beans by the Army for foreign shipment.

Also helping soybean oil meal demand were the heavy rate of livestock feeding and the recent call for mixed feeds.

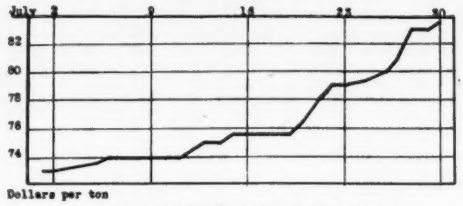
A bearish influence was the government's crop report that showed cotton acreage 14 percent above 1948 and the highest since 1937.

July No. 2 soybeans opened for the month on the Chicago market at $2.38, the month's low, and closed at $2.82. November opened at $2.08, the low and

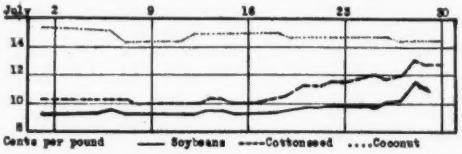
FUTURES CHICAGO NO. 2 SOYBEANS



BULK SOYBEAN OIL MEAL, DECATUR



CRUDE VEGETABLE OIL, TANKCARS



closed at $2.37. High was $2.40 July 28.

Movement of beans was light though the sharp advance in the market brought some out of hiding the last week in July.

Bulk soybean oil meal, basis Decatur, opened at $73, the low, and closed at $83.50 the high.

Many of the big processors were out of the market for the month. Production was fair but was being applied on past orders.

Crude soybean oil in tankcars opened at 9½c, the low, and closed at 11c. High was 11½c July 28.

Strength in fats and oils did not develop until about midmonth. The last of July the movement was the best in several weeks. Demand was from many sources, with refiners and the edible trade the most active.

MEMPHIS SOYBEAN OIL MEAL FUTURES CLOSINGS JULY 30*
Oct., 67.75-68.50; Dec., 63.50-65.00; Jan., flat 63.00; Mar., 62.15-62.50; May, 60.50-62.00; Sales: 3,500 tons.
*Reported by the Chicago Journal of Commerce.

● **USE AS DRYING OIL.** Use of soybean oil in drying-oil products, which had been limited by controls from April 1942 to October 1946, rose to 159 million pounds in 1947 (compared with 62 million pounds in 1941, the prewar peak) and to a new high of 162 million pounds in 1948, reports Fats and Oils Situation of Bureau of Agricultural Economics. Output of soybean oil in 1948 totaled 1,603 million pounds, a new record.

For 1948 as a whole, soybean oil (crude, tank cars, Midwest mills) averaged 22.3 cents per pound compared with 27.8 cents for linseed oil.

Production of soybean oil from the 1948 United States crop of soybeans may total 1,700 million pounds, a new peak, despite large exports of soybeans. With normal yields this year from the anticipated acreage, production of soybeans in 1949 would be about 180 million bushels compared with 220 million bushels produced last year. A crop of 180 million bushels would supply enough soybean oil to provide easily for use in the drying-oil industries at the rate of recent years.

Usage of soybean oil in paints and varnishes totaled 100,314,000 lbs. in 1948 compared with 89,491,000 lbs. in 1947. Slightly less soybean oil than tung oil and somewhat less than one-fourth as much soybean oil as linseed oil was used by the paint and varnish industry in 1948.

Usage of soybean oil in linoleum and oilcloth totaled 22,044,000 lbs. in 1948 compared with 23,297,000 lbs. in 1947. Soybean oil was second only to linseed in consumption in linoleum and oilcloth.

Usage of soybean oil in printing inks totaled 197,000 lbs. in 1948 compared with 1,119,000 lbs. in 1947.

● OIL MILL PRODUCTS. Reported by Bureau of Census, Department of Commerce.

SOYBEANS: RECEIPTS, CRUSHINGS AND STOCKS AT OIL MILLS, BY STATES, MAY 1949—APRIL 1949
(Tons of 2,000 pounds)

State	Receipts at mills		Crushed or used		Stocks at mills	
	May 1949	April 1949	May 1949	April 1949	May 31, 1949	Apr. 30, 1949
U. S.	282,636	259,844	463,759	478,118	689,747	870,870
Arkansas	(1)	262	7,371	8,394	(1)	27,332
Illinois	110,414	110,241	183,722	180,656	284,245	357,553
Indiana	20,001	9,089	39,583	38,942	49,163	68,745
Iowa	71,256	71,105	89,427	83,277	85,222	103,393
Kansas	11,137	7,642	11,486	9,456	11,943	12,292
Kentucky	3,464	4,975	13,414	13,236	30,906	40,856
Minnesota	4,508	9,270	10,463	24,895	18,885	24,840
Missouri	13,244	9,613	17,266	15,413	45,136	49,158
Nebraska	5,505	2,707	4,998	4,113	8,679	8,172
North Carolina	1,409	451	4,608	5,575	4,437	7,636
Ohio	28,789	20,162	54,373	53,861	102,455	128,039
Oklahoma	—	—	—	—	—	—
Texas	(1)	(1)	(1)	(1)	(1)	(1)
All other	12,909	14,327	27,048	40,300	48,676	42,854

[1] Included in "All other" to avoid disclosure of individual operations.

SOYBEAN PRODUCTS: PRODUCTION AND STOCKS AT OIL MILL LOCATIONS, BY STATES, MAY 1949—APRIL 1949

State	Crude oil (thousand pounds)				Cake and meal (tons)			
	Production		Stocks		Production		Stocks	
	May 1949	April 1949	May 31, 1949	Apr. 30, 1949	May 1949	April 1949	May 31, 1949	Apr. 30, 1949
U. S.	154,183	156,088	37,987	43,801	364,201	376,746	24,756	23,427
Arkansas	2,173	2,463	1,043	1,794	5,750	6,228	466	879
Illinois	62,214	60,317	12,162	14,813	139,689	139,967	7,303	5,590
Indiana	12,889	12,707	1,907	2,811	31,301	30,477	1,296	1,618
Iowa	30,422	27,709	7,643	7,357	73,354	67,335	3,085	3,119
Kansas	3,698	2,892	1,764	1,414	9,402	7,500	591	124
Kentucky	4,634	4,591	601	551	10,335	10,263	819	456
Minnesota	3,439	8,485	1,626	2,512	8,466	20,214	527	(1)
Missouri	5,576	5,009	1,421	982	14,263	12,375	2,316	1,268
Nebraska	1,563	1,291	427	593	4,158	3,446	(1)	(1)
N. Carolina	1,235	1,432	1,298	1,220	3,553	4,320	1,829	1,284
Ohio	18,227	17,330	4,091	4,629	42,670	42,968	2,616	2,654
Oklahoma	—	—	—	—	—	—	(1)	53
All other	8,113	11,862	4,004	5,125	21,260	31,653	3,908	6,382

[1] Included in "All other" to avoid disclosure of individual operations.

PRIMARY PRODUCTS EXCEPT CRUDE OIL, AT CRUDE OIL MILL LOCATIONS: PRODUCTION, SHIPMENTS AND TRANSFERS AND STOCKS, MAY 1949—APRIL 1949

Products	Production		Shipments and Transfers		End of month stocks	
	May 1949	April 1949	May 1949	April 1949	May 31, 1949	Apr. 30, 1949
SOYBEAN:						
Cake & meal*	364,201	376,746	362,872	377,340	24,756	23,427
Lecithin**	1,094,400	1,057,299	831,901	1,231,405	1,125,898	863,399
Edible soy flour, full fat*	334	459	384	387	164	214
Edible soy flour, other*	4,537	2,799	4,250	3,061	2,024	1,737

* Unit of measure in tons.
** Unit of measure in pounds.

● SOYBEAN GLUE.

Consumption of soybean glue by the softwood plywood industry in May was 2,478,000 lbs. compared with 2,529,000 lbs. in April and 2,284,000 lbs. in May 1948, reports Bureau of the Census.

Consumption of phenolic resin glue was 2,699,000 lbs. in May compared with 2,385,000 lbs. in April and 3,031,000 in May 1948. Total consumption of all glues by the plywood industry in May was 5,948,000 lbs. compared with 5,674,000 lbs. in April and 6,148,000 lbs. in May 1948.

● FACTORY USE SOYBEAN OIL.

Factory production of crude soybean oil in May totaled 154,183,000 lbs.; 156,088,000 lbs. in April. Production of refined soybean oil in May totaled 118,045,000 lbs.; 127,425,000 lbs. in April.

Factory consumption of crude soybean oil in May totaled 131,971,000 lbs.; 140,404,000 lbs. in April. Consumption of refined soybean oil in May totaled 123,969,000 lbs.; 130,934,000 lbs. in April.

Factory and warehouse stocks of crude soybean oil May 31 totaled 88,631,000 lbs.; 105,365,000 lbs. April 30. Stocks of refined soybean oil totaled 102,045,000 lbs. May 31; 112,523,000 lbs. April 30.

● SOY FLOUR EXPORTS. U. S. exports of edible soy flour increased from 301,136,000 lbs. in 1947 to 703,319,000 lbs. in 1948 reports the Department of Commerce.

The large increase is accounted for mostly by increased exports to certain European countries and Japan. Germany accounted for 335,462,000 lbs. of the increase, Italy 25,519,000 lbs., Austria 7,910,000 and Japan 55,158,000.

Data on exports for the past 2 years indicate that there is no steady market for soya flour in any countries outside Europe with the possible exception of Mexico, Venezuela, New Zealand and the Union of South Africa, according to the Department. Most of the shipments to Japan in both 1947 and 1948 were by the Army for its civilian feeding program.

U. S. Foreign Trade in Edible Soya Flour, 1947 and 1948 (1,000 pounds)

Country of Destination	1947	1948	Country of Destination	1947	1948
North America:			Eire	29	
Canada	1,707	912	Finland	240	
Costa Rica	1		Germany	2,395	337,857
Cuba	7		Greece	1,670	16,828
Dominican Republic	3	2	Italy	18,268	43,747
Guatemala	2	1	Netherlands	30,966	22,959
Jamaica	2		Norway	100	481
Mexico	222	151	Poland and Danzig	15,160	
Panama, Republic of	1		Portugal	7	
Total	1,945	1,066	Sweden	1,381	720
South America:			Switzerland	5,672	62
Brazil		11	United Kingdom	2,900	10
British Guiana	7		Other	28	
Venezuela	171	66	Total	90,577	438,904
Total	178	77	Asia:		
Europe:			China		12
Austria	8,056	15,966	Japan	207,707	262,865
Belgium and Luxembourg	3,705	234	Philippines	10	
			Total	207,881	262,877

● SOYBEAN STOCKS. July 1 stocks of soybeans on farms are estimated to be 9.4 million bushels, according to USDA's crop reporting board. These are the largest for the date since 1944 and twice last year's July 1 holdings, despite a record high disappearance of 42.2 million bushels during the April-June period just ended.

SOYBEAN STOCKS ON FARMS JULY 1

State	Average: 1943-47	1948	1949	State	Average: 1943-47	1948	1949
N. Y.	53	11	8	Del.	37	46	77
N. J.	31	19	22	Md.	38	9	51
Pa.	52	20	31	Va.	98	78	70
Ohio	1,131	439	1,024	W. Va.	1	1	1
Ind.	1,212	556	780	N. C.	221	105	89
Ill.	2,548	982	3,140	S. C.	9	17	22
Mich.	179	26	57	Ga.	2	3	2
Wis.	44	17	23	Ky.	61	131	161
Minn.	321	276	781	Tenn.	18	23	34
Iowa	2,109	876	2,127	Ala.	18	7	10
Mo.	510	495	636	Miss.	62	13	24
N. Dak.	7	3	3	Ark.	111	51	103
S. Dak.	22	32	39	La.	20	14	10
Nebr.	21	14	28	Okla.	3	0	0
Kans.	85	47	63	U. S.	9,026	4,311	9,416

● SOYBEAN STOCKS. Production and Marketing Administration's commercial grain stock reports for July 6-27.

	July 6	July 13	July 20	July 27
Atlantic Coast	470	533	445	226
Gulf Coast	70		468	468
Northwestern and Upper Lake	476	588	562	570
Lower Lake	1,236	1,348	1,202	1,142
East Central	855	532	477	345
West Central, Southwestern & Western	227	111	95	101
Pacific Coast			0	
Total current week	3,334	3,112	3,249	2,852
Total Year Ago	1,244	1,152	1,082	919

● SHORTENING SHIPMENTS. Reported by the Institute of Shortening and Edible Oils, Inc., in pounds.

Week ending July 2	5,250,063
Week ending July 9	4,169,291
Week ending July 16	5,997,368
Week ending July 23	5,250,063

Shortening and edible oil shipments totaled 270,067,000 lbs. in June compared with 246,072,000 lbs. in May, reports the Institute. Second quarter shipments totaled 773,631,000 lbs. compared with 697,669,000 lbs. the first quarter.

CHASE BAGS

THE PREMIUM PACKAGE

pre′mi·um—(prē′mi·*u*m; 159), *n.*; *pl.* PREMIUMS (-*u*mz). [L. *praemium*, orig., what one has got before or better than others.

FOR YOUR PREMIUM PRODUCT

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